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SEVENTEENTH ANNUAL REPORT

OF THE

State Bureau of Labor Statistics.

CONCERNING

COAL IN ILLINOIS.

~~1898.~~ 1897/98

CONTAINING THE

FIFTEENTH ANNUAL REPORTS

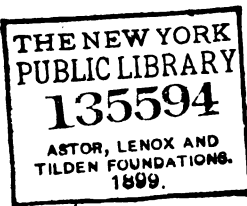
OF THE

STATE INSPECTORS OF MINES.

DAVID ROSS, *Secretary.*



SPRINGFIELD, ILL.:
PHILLIPS BROS., STATE PRINTERS.
1899



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1898.

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STATE OF ILLINOIS,
OFFICE OF THE BUREAU OF LABOR STATISTICS,
SPRINGFIELD, January 1, 1899.

HONORABLE JOHN R. TANNER, *Governor of Illinois*:

SIR:—On behalf of the Board of Commissioners of Labor, I have the honor to submit herewith the Annual Reports of the State Inspectors of Coal Mines for the year ending July 1, 1898, together with summary and analytical tables for the State at large compiled in this office and other matters relevant to the general subject of coal mining in Illinois.

Very respectfully,

DAVID ROSS,
Secretary.

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REVIEW OF THE MINING SITUATION—1898.

The prolonged suspension which occurred last year throughout the principal bituminous coal districts of the country, supplemented this year by a local reign of terror at Pana, and the more unfortunate tragedy at Virden, in this State, has attracted widespread and interested attention to the new conditions surrounding the mining industry, and the influences, whether for better or worse, that have quietly but effectively operated to change its character.

No one familiar with the general mining methods of the present will dispute the statement that the occupation of the old-time miner has practically been destroyed. This result has been gradually reached, partly through the discovery and application of easier methods of mining consequent upon the introduction of machinery, but principally on account of the system that, from considerations of immediate business and profit, it was presumed more advantageous to encourage and prefer the employment of a less superior class of workmen.

Employers chafed under the imaginary restraints imposed by the higher demands of the well disciplined tradesman. To resist this force and perfect the other policy, liberal inducements were offered to a certain class of European workmen, whose meagre necessities made it comparatively easy to comply with their moderate wage demands.

It was assumed that the substitution of the new for the old work-
would not only reduce the former wage standard, but destroy
ability of future resistance by rendering more difficult the
organized effort. Thus the process of displacement contin-

1 per cent of the workers in and around the mines
almost strangers to the English tongue, many of

and in most instances imperfectly, learned

of producing coal. Those responsible

of the mining fraternity have had

occasion in late years to learn the important, though painful, lesson, that while wholesale importations of cheaper labor served the temporary purpose of breaking the high American wage line, their potentialities in the way of subsequent assimilation had not been thoroughly considered, and the later consciousness of the purposes for which they had been used created in time a somewhat vindictive reaction, which, encouraged by the remaining influence of those they superseded, is now expressing itself in persistent, organized demands for better conditions.

Recent experience demonstrates that this force is capable of being mobilized and that it can be relied upon to cooperate with the older miners in support of the last argument, namely, the right to strike. This early and rather unexpected condition, viewed from the wage earner's standpoint, renders the future of the craft more hopeful than it could otherwise be considered, and demands some responsive action on the part of the employers.

We have got away from the old policy of local settlements. Profits from mining investments are now too small to permit of sectional adjustments. Competition's unrelenting sway has made common victims of all. Capacity to produce in excess of market demands, together with modern transportation facilities, have, to a great extent, removed the favored competitor and placed all on a basis of approximate equality.

It is this seemingly unnatural condition of business that makes possible the fierce competition between the mines of West Virginia and those of Illinois in the markets of the northwest.

In view of this situation, what relief is there for those interested in this industry except through a broader and more perfect union of forces? Despite all philosophy, self-interest colors, and often controls, our judgment. Those who a few years ago opposed the exactions of unionism should not now be charged with inconsistency for regarding it as a necessary means of self-protection. New evils, whether self-inflicted or not, suggest new methods of treatment. The present plan of joint action, as indicated by the proposed inter state conferences of miners and operators, for the purpose of agreeing as to rates of wages and other terms of employment, is not a new one. That system was first tried over twelve years ago, when it was the writer's privilege to participate in the proceedings of the initial meeting. For some time *success attended the movement and extravagant hopes were entertained as to the future effects on the industry.* In the course of time

opposition to the scale fixed by the inter state convention asserted itself, particularly as applying to the rate at that time agreed upon for the Grape Creek field. Mine owners then in the extreme eastern part of the State insisted that the rate fixed was unfair; that they could not meet the competition of western Indiana. This disagreement resulted in a year's strike. The contest bankrupted the company, but it also compelled the operators of Illinois to withdraw from the inter state conferences.

This experience need not discourage the friends of these methods, but it serves to call attention to the complex and difficult character of the questions with which the representatives of the mining industry are now forced to deal. The stubborn attitude of the mine owners at Pana, in the present crisis, corresponds substantially with the resistance offered by the Grape Creek operators twelve years ago, and a settlement effected at Pana, adverse to the miners, may, to some extent, control and disturb the deliberations of future scale conventions.

It is rather a sad commentary on the power and judgment of a convention representing the interest of four or five important coal states when one displeased individual or company can defeat the general plan, and through his or its opposition, force several hundred thousand miners to accept a reduced mining rate.

This has been the effect of former disagreements, and similar results may be anticipated until the administrative details of the organization are perfected in such a manner as to guarantee a greater measure of protection to those who are willing to be governed by the action of such bodies, and also the necessary power to control and discipline those who unreasonably refuse to coöperate. When miners and operators thoroughly realize that the present contest is one for the preservation of their industry, it should need no argument to induce them to create an emergency fund that could be easily and speedily raised and used against recalcitrant operators and miners for the purpose of enforcing their decrees.

A charitable disposition to give each competitor a reasonable share of a limited market has made prominent the question of transportation charges, thus forcing the formulation of a scale based on the theory of guarding the interests of the least favored operator. Miners have consented and accepted the policy, seemingly unconscious of the limitations it imposes in the important matter of *advancing wages*.

Under prevailing methods, general mining rates are determined, not on the average but on the most unfavorable existing conditions. The plant furthest removed from the market, and for other reasons most expensive to operate, limits and defines the possible advance. This is particularly true considering the failure so far to materially enhance the selling price of coal, and where advantages to the industry result from greater economy in production.

It would seem necessary, in order to insure the future success and permanency of the plan now being tried, either to form an alliance with the transportation companies, a most difficult undertaking, or ignore altogether the factor of freight charges and fix a mining rate based on the earning capacity of the mine. This presupposes an equalization of wages, which is really the object sought in the present movement, and probably the abandonment of some unprofitable mines.

This plan, like the other, is not new, as it is now in operation in some of the large mining districts of England, where, according to reports, it has given general satisfaction. Of the results thus far accomplished by the present system there can not be two opinions. It has created between the operators and operatives a stronger feeling of common fellowship. Direct personal contact has helped to destroy the old spirit of animosity. Aside from the advance in mining rates secured by this process, many important concessions have been made. The right to unite for craft protection has not only been publicly recognized but reciprocated and encouraged. Through the medium of joint conferences have come many changes that wage earners have long worked and waited for. The establishment of the eight hour work day will, in time, be equivalent to an increase in wages. It will not only furnish additional opportunities for physical, moral and intellectual improvement, but relieve the pressure of an overstocked market, which in turn will exert its proper effect on the value of the miner's product. This is a permanent change for good, as there is no precedent in modern history warranting the thought of ever again returning to the old system. All tendencies are in the other direction.

Part of the agreement reached at Chicago last January provided that the wages of coal miners should be paid semi-monthly. After years of agitation the miners win through friendly intercourse what had frequently been denied them by the courts. The system of *weighing and paying for coal on the basis of gross weight, so far as miners of this State are concerned*, was also conceded.

Thus have been removed many of the grievances prolific of much former discontent, by mutual methods more binding than legal enactments and without the friction of the law's enforcement.

More or less opposition was expected in the enforcement of an interstate mining scale, first, on the part of those who, while subject to its provisions, were not represented at the conference; and who did not consider themselves bound by its decisions; and second, on the part of mine owners who, while participating in the proceedings, felt that the action taken was prejudicial to their interests.

This State experienced both phases of the difficulty. The Chicago-Virden Coal Co., represented at the Chicago meeting, and certain coal companies at Pana, claiming that they were not represented, both refused to recognize the authority of the convention or to comply with the scale. While anticipating some local resistance, the methods adopted by the opposition created surprise, particularly as they invoked the exercise of a new executive function. The Virden Coal Co. expressed its readiness to sustain its contention that it was impossible for them to operate and pay the scale by submitting its claims to the judgment of the State Board of Arbitration, and signed a contract with the members of said Board to abide by the award. After several days' session the Board, considering the evidence presented, decided that the company could pay the 40-cent rate fixed for that field and operate at a profit.

Notwithstanding the written contract the company repudiated the decision and continued the contest. Later, at the request of the company, a committee from the national executive board of the United Mine Workers was selected, with authority from the general union to take evidence and agree upon a mining price for that company. This committee, on a complete and detailed consideration of all the facts, affirmed the decision of the State Arbitration Board, and again the company declined to comply with the verdict. Having taken the case to the court of last appeal, the company persisted in violating its written agreement.

At Pana the situation was somewhat different, inasmuch as the companies there absolutely refused to submit the questions at issue to any committee or to any board of arbitration, basing their action on the old assumption

that the books of those corporations were private property and not to even request that they be examined. The action that deliberately violated its duty to the State or the public had ar

interest in the management of its business affairs, it is somewhat difficult to judge. Yet, from a standpoint of consistency, the latter's course was the most commendable. Of the twenty mines in the State which refused to pay the scale rate for mining, those at Virden and Pana excited the most interest on account of the policy pursued to defeat the plan of the inter state convention.

During the brief life of the movement some very interesting developments have occurred and important issues presented. While the suspension of last year was in progress certain coal companies in the State attempted to terminate it by the importation of Chinamen, but on learning that Governor Tanner, as the controlling power of the State's military forces, refused to become a partner to this assault on the interests of society, the plan was abandoned, notwithstanding the contract for their transportation had been signed.

This intimation of the Governor's position on the question of importing labor into the State was evidently misunderstood by the obstreperous mine owners at Virden, who, with due notice of what would result, deliberately proceeded to construct a stockade about the mine and attempted to import negroes from the south, many of them ex-convicts, and all under the protection of foreign guns. Governor Tanner promptly and correctly interpreted this demonstration as a direct challenge to the State government, and at once ordered the militia there, not as other governors have done, to protect the mine owners in operating their plants with such labor, but with strict instructions not to permit their disembarkation at Virden.

This is the first time in the history of the State or of the nation that the military power of the law, during an industrial contest, has been exercised in defense of the rights of American labor.

It is not to be wondered at that interests long accustomed to the protection of the military in their battles with laboring men should be inexpressibly shocked at this new expression of executive power. Can the capitalistic press that have so bitterly assailed the Governor for his action in the Virden strike defend their position without at the same time approving a policy that militates against the best interests of society? However disagreeable this attitude may appear, it is well that the real sentiments of the moneyed press should be clearly defined. This class was not interested in ascertaining the facts or considering the ethical features of the situation. It was *rough for them to know* that a criminal conspiracy to reduce wages

through the importation of convict workmen had been defeated by the courage and conscience of the present chief executive of the State.

Great misapprehension existed concerning the status of the difficulty at Virden. It was represented that the miners were striking against a reduction of wages, and those who were willing to accept the terms offered by the company should be protected from molestation. The facts are, the miners were not on strike. They were willing to resume at the rate fixed for that field by the convention at which their employers were represented. They were locked out because the mine owners refused to pay the advanced mining rate conceded by their competitors.

Again, those who attempted to take the place of the locked-out miners did not move of their own volition, but came as an army, some of them in cattle cars, and all under the protection of Winchesters in the possession of men disqualified to perform police duty under the laws of this State.

Governor Tanner, in a speech delivered at Trenton, November 7, 1898, reviewing the situation and assigning reasons warranting the action taken, spoke in part as follows:

"In a discussion of the Virden riot, two questions present themselves for decision: First, were the proprietors of the Virden mine justified, under the existing circumstances, in bringing labor from any other point, in or out of the State of Illinois, to take the places of the coal miners already on the ground? Second, was the form, as well as the substance, of their action in the premises in accord with the statutes, or did they act in an unlawful manner?

"As to the first of these questions, it must be remembered that the Virden mine was represented in the Interstate and State Mining Congress, called to agree upon a scale of prices to be paid by the owners for bituminous coal in every district of the competitive area, which extended in a general way from West Virginia to Illinois. That convention was authorized to fix the price of mining coal wherever found in that area, having regard to local conditions in each district, such as depth and thickness of vein, the quality of coal, distance from the market, and other physical conditions. If it had no such authority it was a solemn farce and fraud upon its face, and its conclusions could have no binding effect upon the owners of the mines or the operatives. Its action, of course, could have no binding effect in any event upon the owners of mines not represented, and it is to be assumed that the representatives of the owners had the right to withdraw from the deliberations of the convention, if dissatisfied with its conclusions and r

"The Virden and Pana mines were represented at Springfield. They had a voice, by their representatives, in the deliberations of the conference, and their representatives did not withdraw or give notice of a purpose to refuse to abide by the scale of wages there assented to and adopted, and now in force in all other parts of this State. This agreement has all the essential features of a contract, the contracting parties being the mine owners, as a body, on the one hand, and the miners, as a body, on the other.

"Personally, I believe that employes and laboring men have the same natural and legal right to form combinations for the purpose of maintaining a living wage that employers have to combine in order to keep up the price of their manufactured products and to keep down the price of labor.

"It appears to me that of all obligations that can be formed, none is so justifiable, or expedient, or sacred, as an agreement in which the employers of labor and their employes unite upon equal terms and have a common interest. That was precisely the character of the agreement reached at Springfield, to which the Virden and Pana mine owners were parties.

"At this point I must be permitted to make another distinction of great importance in the elucidation of this somewhat ethical and legal problem. I have been greatly misunderstood and misrepresented as to my official attitude touching the controversy between the owners of the Virden property and their employes. Let me explain it as best I can. No lawyer or business man will contend for a moment that under the terms of the Springfield agreement these gentlemen were under any legal obligation to operate their mine at any pecuniary loss. They claimed that it would be impossible for them to successfully compete with their business rivals at the rate of wages for mining coal fixed for their district by that convention, and suspended operations. Other mines, however, in the same field, with similar physical conditions, for instance, all those in Sangamon, Logan, Macon and Menard counties, carried out the Springfield contract and paid the scale of 40 cents per ton, and I believe (and I have heard nothing to the contrary), are running at a profit.

"The Virden operators then made an offer of a lower rate—25 cents per ton—which was refused. The situation, therefore, was not a strike by the miners, as is charged in the public prints, but was a 'lockout' by the mine owners. It existed, not by the choice of the miners, but by that of the mine owners. When it became as intolerable to the latter as it had long been to the former, they took steps to end it by bringing in cheap labor to take the place of the men already upon the ground.

"No one, I think, possessed of the ordinary sensibilities and sympathies of a normal human being can contemplate the condition of the workingman who is both able and willing to work and who can not find remunerative employment without experiencing the emotion of pity. The case of the workingman is peculiarly distressing when, in order to secure employment, he is compelled to sever the ties which bind him to the community of which he is a member, to sell the little home bought and partly paid for with his scanty savings—the home in which his children were born, and from which possibly *me of them have been carried to their premature graves in the village cemetery—and to go forth once more into the cold world a wanderer and a fugi-*

“But these Virden miners did not strike; therefore they are doubly worthy of pity; and though we grant that the mine owners had the legal right to further oppress these laboring men, I contend that they did not have the moral right to do so. It was an act of tyranny, for which they must account to their consciences and to their God. If it is sought to justify it upon the ground of the exigencies of business, all I have to say is that men have no right to crush the life out of other men for the sake of money. It is sometimes a man's duty to fail in business when success is attained only through wrong-doing.

"The action of the Virden mine-owners was, moreover, contrary to public policy. The attempt has been made, for political reasons, to make it appear that my position in opposing the introduction of Alabama miners into the Virden mine was based upon their color. No negro of average intelligence and honesty will be deceived by this insinuation. I am as free as any man from color and race prejudice. I am the only Governor in the United States who sent to the field, in response to the call of the President for volunteers, a negro regiment, officered by negroes, with a negro colonel at its head. That charge, at best, must fall to the ground. The Republican party is and has always been and will long continue to be the negro's best and only political friend. But I know, as every well informed man knows, that the coal mining industry in Tennessee, Georgia and Alabama has been developed under the able lead of a syndicate of capitalists who were the lessees of convict labor in all the three States named; that convicts, white and black, in the south, have been and are being used in these syndicate mines, and that originally there were few of these states who did not acquire the knowledge of the fact while under sentence for crime. It is impossible to stop the importation of miners from the south."

into any northern state can occur without the introduction into our communities of a most undesirable element of the population—not because they are negroes, but because they are ex convicts.

“But if all that I have said thus far should be dismissed from consideration as irrelevant or inconclusive, the fact remains, even though it should be conceded that they had a legal right to bring this labor into the State, that they proceeded to do so in an illegal manner, and after notification from the highest authority in the State—its Chief Executive—that their action was calculated to provoke riot and bloodshed. They can not evade the responsibility for the fatal issue of the Virden riot by hiding behind the constitution of the United States. That noble instrument was never designed to be a shield for tyranny and murder.

“Did these negroes come here as free men? Or were they brought here as slaves? Free men, on a lawful and peaceable errand, need no arms and no hired protection upon any foot of soil covered by the American flag. Men in a locked car are not free men, but prisoners. These men were prisoners without authority of law. They were under no criminal charge, had not been tried, and were entitled to go and come at their pleasure. The men who, under the guise of their protectors, were in fact their jailers, had no legal authority to bear or use arms. They were outlaws. A lawful purpose can be carried out under the protection of law without the aid of hired thugs and assassins. Who hired these assassins? What right had they to hire them? They were not even citizens of this State, but armed invaders of its soil—fifty or sixty of them, armed with repeating Winchester rifles loaded with powder and ball, invading our State for the purpose of shooting—and they did shoot down—our citizens.

“I am a man of peace, but there is one thing which I value more highly than the public peace, and that is public justice.”

This statement presents in a clear and forcible manner all the facts of the case, and thoroughly destroys the criticism of an unfriendly press. With the progress of modern opinion comes new responsibilities which men active in the sphere of industry or politics can neither ignore nor avoid. Our complex system of industrial life has revolutionized ancient notions and imposed additional duties, principal among which is the recognition that the peace and interest of the public must be conserved, even at the cost of denying certain abstract individual privileges—not on the theory of “the greatest good to the greatest number,” a maxim open to serious criticism—but on the broadest grounds of public welfare which interest of all. Our conduct is controlled by the social state in which we live, and is governed by the extent and character

The fact that men will persist in putting their judgment and individual interests against the progressive tendencies in social and industrial affairs indicates that the millenium is not yet in sight, and that war in some form will continue.

It is fair, however, to presume that if industrial contests can not be avoided, that the conscience of enlightened communities will not tolerate their prosecution by the barborous methods heretofore practised. It is generally recognized that certain rules must obtain in military warfare, and the local public, embarassed by an industrial conflict, will assert its interest at least to the extent of insisting that neither party take undue advantage. It was public considerations of this kind that censured the action of the Virden Coal Company in attempting to stockade its mine, and later, aroused indignation when a merciless mob of hired murderers, protected from possible attack, shot down law abiding citizens and unprotected workmen.

The strike at Virden demonstrated that the American wage earner will fight for his job and his home as readily and as earnestly as he will for his flag. Governor Tanner's pathetic reference to the "home" and the "village cemetery" touches this aspect of the contest. One who has devoted much time and thought to the study of social and economic questions, writing in commendation of the Governor's action in relation to the Virden strike, makes the following suggestive observation:

"It seems absurd that we should spend millions of money and the best energies of our being in training, educating and developing the children of our race, and after we have made men of them, to allow them to be sup-
planted or forced to accept the standard of men who are hundreds of years behind them in what we call civilization.

"It betokens an immense advance in public sentiment when the Chief Executive of the State boldly proclaims that the power of the State shall no longer be used to support measures that can ultimate in nothing but the deterioration of its citizenship."

To foster and protect an exalted citizenship is and should be the concern of the State and nation, and surely he who may seem to fail in the function of his office in this respect can not be justly excused with having violated any law. The action taken at Virden,

invoked the exercise of the powers of the State, was but
of the policy adopted by the Governor during the

1897, when he refused to make the State an
mine at a rate less than that demanded.

1 in securing the advance at which

work in the mines was resumed, not only in this but the other states comprising the competitive districts. Had the Governor complied with the wishes of certain employers by honoring the demands of timid sheriffs for troops, a different settlement would have been effected and one not so satisfactory to the miners. If the State had volunteered its assistance to mines attempting to operate at less than the rate demanded, it would only be a question of time when others would have followed, and a material break at any point in Illinois would force a similar settlement throughout the competitive districts.

With the exception of a few metropolitan papers, owned and controlled by corporate interests, the Governor's course has been generally endorsed. Referring to the intention of certain operators to import Chinese workmen during the suspension last year, the *Chicago Record* said:

"If the operators of the mines in the Braidwood district are seriously intending to hire Chinese labor as a means of coercing their employes into submission, it is necessary to warn them that they will be doing worse by themselves than by the miners. The American people will not stand this sort of thing.

"It is all well enough to say that corporations have the right to go to the cheapest market for their labor, that the law of supply and demand works here as elsewhere. There is a line of reasonable dealing beyond which not even a private individual may go. And a corporation, employing hundreds of men and depending upon the people for the purchase of its products, occupies a public relation which binds it still more firmly to keep within reasonable limits in making its struggle against labor.

"If the mine operators proceed to import Chinese coolies who can live on almost nothing, who do not expect to have what American citizens regard as the decencies of life, to say nothing of its comforts, who are able to 'compete' with American labor by starving it out, they must be prepared to take the consequences. They will get no sympathy from the public and they will be held responsible for whatever disasters may follow."

On the question of imported labor during the Virden and Pana contests the same paper gave expression to the following opinion:

"The employing mine owners at Pana, Ill., are bringing in negroes from the south to take the places of their striking workmen, with whom there is a dispute over the question of wages. The citizens of Pana in mass meeting Tuesday evening adopted resolutions protesting against this course on the part of the employers as tending to lower the standard of citizenship in their community.

"The protest of the citizens of Pana is well taken, not because the imported workmen are colored, but because they are low grade workmen, and the ef-

fect of their coming must be to lower the standard of citizenship and of civilization in that place. If the demands of the strikers at Pana are excessive, the operators have a right to secure other workmen. But it is a social wrong for the operators to replace one set of workmen with others of a distinctly lower grade. The citizenship of a community should be kept up to as high a standard as possible, and the efforts of those at the bottom to raise the standard by bettering their conditions are deserving of encouragement. For a part of the employers in a community deliberately to lower the standard by importing inferior workmen to take the places of those of a higher grade, without doing everything possible to come to an agreement with those who have been in their employ, is an offense against the community.

"In Pennsylvania the miners used to be high grade American workmen, who commanded fairly good wages. Every time there was a difficulty over wages or conditions of labor, foreigners were imported, and the American workingmen were forced out altogether. As a result the standard of citizenship in some of the Pennsylvania mining communities has been radically lowered to the extent that those communities are not fit for self-government. The mob that was fired upon by a sheriff's posse at Lattimer some time ago was made up entirely of foreigners of this type, who had crowded out higher grade workmen, and then in turn found themselves ground down beyond the point of endurance.

"In self-governing communities the instinct of self-preservation must prompt a protest against this sort of thing. Labor troubles must be settled upon some other basis than that which results in radical lowering of the standard of citizenship by substituting an inferior for a higher grade of workmen."

The *Peoria Herald*, an influential journal, politically opposed to the Governor, was fair enough to make the following bold declaration:

"The Chicago papers that are opposed to Governor Tanner can see nothing in his recent refusal to send troops to Pana to protect the imported miners other than a bid for political favor. The Herald has opposed John R. Tanner as bitterly as any newspaper in the State. It does not pretend to analyze the motives that may have actuated him in refusing to send troops. It simply believes that he did the right thing at the right time. We are willing to leave the motives to God and his own conscience. There has been nothing that has caused more trouble in this State than the importation of labor to take the place of home labor if the miners make a demand for what is justly due them. Heretofore it has been the case that all the operators had to do was to go down south, where labor is cheaper, where the expense of living is less, and get a lot of black or white men to take their places. They have then sat back in their chairs and asked the State to run their mines for them to the extent of seeing that no trouble came of this business.

"And it has been to the shame of the State of Illinois that the State has usually consented to do this very thing.

"It is time that some Governor with the necessary courage should rise up and say that this thing must stop. It is time that the militia of the State should cease to be used as bond slaves to help perpetuate a series of outrages aimed by combined capital at home workingmen. No one pretends that the claims of the miners are not just. Competition in coal has become so keen that prices have been cut away below what they should be, and when this is done the miner is called on by the operator to shoulder the loss that comes inevitably from this fierce competition. This is not the fault of the miner and he should not be called on to suffer the loss. He is getting merely what he can live on. Anything below that places him below the horse or any part of the animal kingdom that is well kept.

"In the importations of miners that have taken place heretofore, few of the importations have remained. They have discovered that they can not live here in the north, with its five months of winter, for what they could in the sunny south, where the expenses of everything, from food down to clothing, are so much less, and they have returned. But they have stayed long enough to break the spirits of the miners who were contending for their rights, and who have been unable to bear the sight of starving wives and children. It has been but a few years since we had an illustration of this at Spring Valley.

"The Herald hopes that Governor Tanner will continue firm in refusing to use the State militia for the purpose of helping the coal operators carry out the scheme they have in view. We hope that he will continue to refuse to allow State troops to be used against Illinois workingmen so long as the property of innocent parties is not threatened. If that course results in increasing the popularity of John R. Tanner, which seems to be the dread of some of the Chicago newspapers, so much the better. It should increase his popularity. People can not help thinking well of a governor who breaks away from the old plan of furnishing aid to the plutocrats and nothing but shot and bayonets to the workingmen. There is nothing more popular—nothing that more increases the esteem in which a state official is held—than his daring to do right. And that is what Governor Tanner is doing in this instance."

Resolutions commendatory of the action taken have been passed by nearly all the labor bodies in the United States, the latest expression being that of the American Federation of Labor at its recent session at Kansas City, where delegates representing every organized craft united in an unqualified endorsement of the Governor's conduct.

The most significant expression appeared in the editorial columns of the *Coal Trade Journal* of New York. Representing principally the interests of the employers, its editor, a fearless, independent man, had the courage to write as follows:

"Governor Tanner of Illinois is being severely criticised by what is commonly termed the metropolitan press, but which should be more justly termed the 'moneyed-aristocracy press' of the country.

"The condemnation heaped upon the Governor, boiled down and crystallized, is hatred for his position as a fair man, and opposition to his method of doing justice to all men. It is such a new thing.

"Such a departure from the ordinary way of doing business by the chief executive of any state that the employers, who heretofore have, almost without exception, been able to use the militia to assist in defeating the projects and objects of the laboring people, are surprised. Workingmen have repeatedly charged that the militia were used to coerce them into obedience to the wishes of employers, and that they were used for that purpose is at present very evident from the abuse heaped upon Governor Tanner.

"If it were not so the action of the Governor in sending soldiers to preserve the peace, as he has done at Pana and Virden, would meet with approval. The attitude of the Governor towards the strikers and his instructions to the military that they were to disarm all people found with firearms in their possession, and that they were not to give countenance or encouragement to the actions of employers in their attempt to coerce their workmen nor to lend assistance to the employers in their efforts to substitute scab for union labor, has completely astonished the capitalistic interests and they fall back on the time worn cry of 'anarchist.'

"Any official who dares to do right and who dares to execute the laws impartially to all men, rich or poor, to employé as well as employer, is such a contrast from the usual run of officials, that he is regarded as a dangerous man and the eyes of all men are turned toward him.

"One thing, however, is very much in evidence in the career of Governor Tanner—that neither the gratitude of the one class nor the hatred, envy and jealousy of the other, can influence him to depart one iota from the strict line of duty impartially performed by him since the trouble began.

"The Governor has repeatedly asserted, and has reiterated his assertion, that he is opposed to the importation of labor into Illinois, giving as some of his reasons that there is labor enough, and more coming of their own volition, to perform all the work that is to be done in the State. In this position the Governor will be supported by all the right-thinking people in and out of the State.

"The cry is raised for the purpose of creating a race prejudice against the Governor, that he is an enemy to the colored man, yet no negro coming into the State of his own volition has been prohibited, and we feel safe in saying that if white labor, contracted for and imported in under the same conditions that the colored labor brought in was, that the Governor would oppose it just as much and as earnestly as he now does the colored, not because of color, but because the system is wrong, and he is opposed to Illinois being made the dumping ground for any kind of undesirable labor, be it white, black or yellow."

These opinions, it is fair to presume, merit the approbation of all men honestly and legitimately engaged in the coal industry, and

they are in strong and refreshing contrast to the obsequious sentiments expressed in certain coal journals, to which propriety in this connection forbids even a reference.

Public feeling is so strong in favor of this new departure in wage contests that the precedent established by the present Executive of this State will, with or without special legislation, become the recognized policy. Congressional enactment now makes it unlawful to import, under contract, labor from foreign countries; the same principle applied between the states will confine the wage controversies of the future to native or resident labor, and encourages the hope that the day is not far distant when the military power of state governments will no longer be used for the unholy purpose of oppressing honest toil. Should this consummation be realized, then, in the interest of generations to come, the lives sacrificed in the battle at Virden may in some measure be atoned.

The lockout at Virden commenced on the 1st day of April, 1898, and continued until the 15th day of November. During all those months the officials of the company declared their inability to operate and comply with the scale. The settlement ultimately effected utterly destroyed all these contentions.

The agreement signed on the 15th day of November by the officials of the company and the miners' organization stipulated that the union would be recognized; that all the former workmen would be re-employed without discrimination; that the scale price of 40 cents per ton would be paid, and that the services of the superintendent, engineers and mine managers who had taken an obnoxious part in the contest, be dispensed with, and others satisfactory to the miners substituted.

It is not on record where a corporation made such a complete and seemingly humiliating surrender to the claims of its employés. The presumption is that the company could more readily afford to comply with the demands of the miners at the commencement than after the losses sustained in consequence of a seven months' suspension. The situation at Pana, so far as it affects the union, remains practically the same, except the increased power of the organization to continue the contest. The conduct of the mine owners there, like that at Virden, is without excuse or justification. Their stubborn policy has seriously impaired the interests of the city and almost destroyed *its reputation.*

Viewed from a strictly business standpoint, it would have cost less for the people of the State to have appropriated from the public funds a sum equal to the aggregate earnings of the Pana miners for the past year. Unless speedily adjusted, the Pana difficulty will cost the people of Christian county and the State, for the hire of special deputy sheriffs and militia companies, an amount equal to, if it does not exceed, what the miners would have earned.

Thinking people must conclude that this is altogether too high a price to pay for the privilege of witnessing a few coal companies outraging the good sense of a community and defying the laws of the State.

STATISTICS OF THE STATE FOR THE YEAR.

This is the fifteenth annual report of the State Bureau of Labor Statistics relating to coal mining in Illinois. It contains the customary statistics of this industry for the year ended July 1, 1898, as obtained from the owners of mines by the State inspectors, and by them reported to this office.

The reports of inspectors are made upon uniform blanks prepared for them in this office, and embrace the statistical record of the operating conditions and the output of every mining plant or opening within each inspection district for the year under consideration; they are accompanied by appropriate text and constitute the major portion of the following pages.

For the purpose of arriving at the facts for the State at large which are gathered for the several districts, the reports of inspectors are summarized and subjected to such analysis in this office as may be necessary in order to determine the status of the industry as a whole. The result is a presentation which covers many details concerning not only each individual mine, but the mines grouped by counties, by inspection districts and for the State at large.

While this report is prepared on lines parallel with former reports, thus preserving an unbroken chain of consecutive statistics, some new features of minor import are presented this year as the result of special inquiries. These inquiries have related (1) to the relative tonnage delivered to the general trade, to the local trade and to the plant for its own consumption; (2) to the distribution of the coal which is shipped to the several railroads engaged in handling it, and (3) to the possible output of the mines of the State as contrasted with their actual output. The facts in each of these respects have been successfully obtained and are fully set forth in subsequent pages.

Another observable feature of the report this year is the impress made upon the statistics of the industry by the prolonged and general strike which prevailed during the first part of the year, from July to December, and, in some parts of the field, from the following April to July. This experience was remarkable in its character and results and has affected not only the tonnage of the year, but in some degree the price of coal and the prices paid for mining.

The following are some of the salient totals for the State for the year:

SUMMARY—1898.

Number of counties producing coal	52
Number of mines and openings of all kinds	881
New mines or old mines reopened during the year	120
Mines closed or abandoned since last report	92
Total output of all mines in tons of 2,000 pounds	18,599,299
Estimated possible output with present equipment	41,082,925
Number of shipping mines	329
Total output of shipping mines, tons	17,655,561
Number of mines in local trade only	552
Output of local mines, tons	943,738
Total tons of lump coal	14,208,795
Total tons of other grades	4,390,504
Total tons shipped	15,596,888
Tons sold to local trade	2,149,808
Tons consumed (or wasted) at the plant	852,603
Average days of active operation for shipping mines	174.7
Average value per ton of all lump coal at the mines	\$0 91.8
Aggregate home value of total product	\$14,567,598
Number of mines in which mining machines are used	55
Number of mining machines in use	392
Number of tons undercut by machines	3,415,635
Average number of miners employed during the year	26,520
Average number of other employés	8,506
Total employés	35,026
Number of men at work under ground	31,602
Number at work on the surface	3,424
Average price paid per gross ton for all hand mining	\$0 44.09
Average price paid per gross ton for machine mining	\$0 31.37
Number of kegs of blasting powder used	379,986
Number of men accidentally killed	75
Number of wives made widows	45
Number of children left fatherless	112
Number of men injured so as to lose a week or more of time	438
Number of gross tons mined for each life lost	247,991
Number of employés to each life lost	465.7

A comparison of these figures with those of the preceding year shows an increase of 28 in the whole number of mines and openings of every kind in the State. This is not an unusual fluctuation in the reported number of mines, from year to year, as the gains and losses usually occur among the mines of smallest consequence. In this case, however, 19 of the 28 new mines are of the class known as shipping mines, and as such will become an appreciable factor in future production.

The whole number of tons of coal raised to the surface during the year is, in round numbers, a million and a half tons less than the number reported for 1897. This is not surprising in view of the duration and magnitude of the strike. It is probably a smaller shrinkage than would have been expected. It is explained by the fact that while many mines were idle, a few were running night and day, and by the further fact that after the strike was settled, all mines resumed operations with unusual activity.

The actual annual capacity or possible output of the mines of the State, operating under existing conditions, is here recorded as 41,082,925 tons, or 121 per cent more than the actual output for this year. Assuming that a normal output for this year would have been something over twenty million tons, it appears that the capacity of the mines of the State is equal to fully twice the demand for this product.

The average running time for the shipping mines for the year is found to have been 174.7 days each, while that of the preceding year was 185.5 days. This difference is also less than might have been expected. It is not inconsistent, however, with the decline in tonnage, which was only 7.5 per cent, while that for days of active operation was 6.4 per cent; both confirm the excessive activity subsequent to the strike.

A comparison of average values for the last two years shows, for the first time in many years, a slight reaction from the tendency to lower prices which has so long prevailed. The average value of all coal at the mine, as computed for the State for 1897, was 85.2 cents per ton, the lowest value ever reported in this State. This corresponding average is found to be 91.8 cents per ton; at the close of the year for which this report is made, the *den* coal has been firm at advancing prices.

In the matter of prices paid for mining, or the wages of miners, the strike accomplished a material increase throughout the State, which is approximately expressed by the figures 34.26 cents per ton for 1897, and 44.09 cents per ton for 1898. These are the averages computed for all gross-weight mining for the two years. The difference is probably rather a generous measure for the average gain obtained by the miners, but it is impossible to make exactly parallel averages, owing to the establishment, now for the first time, of a uniform gross-weight basis.

An observable feature of the situation, as shown by the foregoing figures, is the recent increase in machine mining. During the year the number of mines in which machines have been used has been increased by twelve and the number of machines in operation by seventy-two. This new interest in the mechanical process is accounted for in part by the impression that the mining rates as fixed by the State conferences are specially favorable to machine mining, and partly by the degree of efficiency which is being developed by some of the newly devised electrical machines. The effect of this new use of machines does not as yet appear in the machine tonnage, for the reason that many of them are so recently installed, and the further fact that the strike was of longest duration in machine mines.

The reported number of miners and other employes is somewhat greater this year than last, the whole number being 35,026. Of these, 31,602 are employed underground, and the remainder, or 10 per cent of the whole, on the surface.

The whole number of fatal accidents during the year was 75, which is six more than the fatal casualties of the preceding year.

More specific treatment of the leading features of the statistics of the State is found under appropriate heads in the following pages.

CLASSIFICATION OF MINES.

For the purpose of defining the relative importance of the coal mines of the State it is customary to separate them into two general groups—those operated for shipping purposes and those operated for local consumption. An analysis of the mines reported this year shows that not only the number of mines in operation but the number of men employed in and the number of

TABLE I.—*Shipping and Local Mines, by Districts.*

DISTRICT.	TOTAL.			SHIPPING.			LOCAL.		
	Mines.	Men.	Tons.	Mines.	Men.	Tons.	Mines.	Men.	Tons.
First.....	86	7,377	2,209,362	39	7,011	2,018,150	47	366	191,212
Second.....	184	6,799	2,551,110	48	5,966	2,260,610	136	833	290,500
Third.....	217	1,800	721,846	21	1,141	567,296	196	659	154,550
Fourth.....	94	4,030	2,572,059	39	3,608	2,409,702	55	422	162,357
Fifth.....	79	6,093	3,925,690	51	5,976	3,891,294	28	117	34,396
Sixth.....	98	4,662	3,459,932	72	4,518	3,407,491	26	144	52,441
Seventh.....	123	4,265	3,159,300	59	4,077	3,101,018	64	188	58,282
The State.....	881	35,026	18,599,299	329	32,297	17,655,561	552	2,729	943,738

The whole number of mines here given is 881, or 28 more than was reported for last year. Of the new mines, 19 are found among shipping mines and 9 in the local class. The number of shipping mines is thus increased to 329 and the local mines to 552. The relative unimportance of this greater number is made apparent upon an examination of the small number of men employed in all of them, and the consequent insignificance of their entire output. The following table of percentages renders the contrasts between these two groups somewhat more conspicuous:

TABLE II.—*Percentages of Shipping and Local Mines, by Districts.*

DISTRICT.	SHIPPING.			LOCAL.		
	Mines.	Men.	Tons.	Mines.	Men.	Tons.
First.....	45.35	95.04	91.35	54.65	4.96	8.65
Second.....	26.09	87.75	88.61	73.91	12.25	11.39
Third.....	9.68	63.40	78.59	90.32	36.60	21.41
Fourth.....	41.49	89.53	93.69	58.51	10.47	6.31
Fifth.....	65.43	98.08	99.12	34.57	1.92	0.88
Sixth.....	73.47	96.91	98.48	26.53	3.09	1.52
Seventh.....	47.97	95.60	98.11	52.03	4.40	1.89
The State.....	37.49	92.30	94.93	62.51	7.70	

From this it will readily be observed that the mines which constitute this an industry are the 329 shipping mines, which employ to 92 per cent of all the men, and deliver 95 per cent of the coal. The local mines, however, have their own im-

as a convenient source of cheap fuel for many people, and as contributors of nearly a million tons to the total fuel supply of the State.

A more specific classification of the mines of the State is that based upon their output, which is presented in the following table:

TABLE III.—*Classification of Mines by Output and by Districts.*

DISTRICT.	MINES PRODUCING—											
	Under 1,000 tons.		1,000 and under 10,000 tons.		10,000 and under 50,000 tons.		50,000 and under 100,000 tons.		100,000 tons and over.		Total.	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
First	28	21,410	28	71,508	11	282,137	13	934,599	6	899,708	86	2,209,362
Second	69	35,516	76	218,602	22	515,078	10	727,198	7	1,054,716	184	2,551,110
Third	155	55,328	46	113,974	13	293,828	2	116,414	1	142,302	217	721,846
Fourth	20	11,095	41	127,794	15	415,240	11	842,477	7	1,175,453	94	2,572,059
Fifth	17	9,960	12	28,436	14	331,445	23	1,716,560	13	1,839,289	79	3,925,690
Sixth	7	3,350	24	74,556	45	1,196,557	16	1,151,507	6	1,033,962	98	3,459,932
Seventh	55	24,963	17	57,279	31	751,677	11	862,758	9	1,462,623	123	3,159,300
The State.	351	161,622	244	692,149	151	3,785,962	86	6,351,513	49	7,608,053	881	18,599,299

The five groups into which the mines of the State are here separated, sufficiently indicate their relative value as producers of coal. Combinations of these groups show that 135 mines produce 50,000 tons or over, each, and a total of 13,959,566 tons, that is, an average of over 100,000 tons each; while 595 mines produce a total of only 853,771 tons, or an average of 1,426 tons each, in the year.

The relation of each of these groups to the whole number of mines and the whole number of tons produced in the State, is shown in the following table of percentages:

TABLE IV.—*Percentages of the Total Number and Total Output of Specified Classes of Mines.*

MINES PRODUCING—	No.	Output.	PERCENTAGE OF—	
			No.	Output.
Less than 1,000 tons.....	351	161,622	39.84	0.87
One thousand and less than 10,000 tons.....	244	692,149	27.70	3.72
Ten thousand and less than 50,000 tons.....	151	3,785,962	17.14	20.36
Fifty thousand and less than 100,000 tons.....	86	6,351,513	9.76	34.15
One hundred thousand tons and over.....	49	7,608,053	5.56	40.90
Total.....	881	18,599,299	100 00	100 00

The relative size of these respective groups does not materially fluctuate from year to year, though they necessarily change in some degree. Following is a record of the number of mines which have been found in each of these classes for a series of years:

TABLE V.—*Number of Mines in Specified Groups for a Series of Sixteen Years.*

YEAR.	NUMBER OF MINES PRODUCING—					Total mines.
	Under 1,000 tons.	1,000 and under 10,000 tons.	10,000 and under 50,000 tons.	50,000 and under 100,000 tons.	100,000 tons and over.	
1883.....	209	233	133	39	25	639
1884.....	262	273	148	38	20	741
1885.....	296	290	143	40	19	778
1886.....	316	280	135	44	14	789
1887.....	320	278	141	42	20	801
1888.....	327	272	151	47	25	822
1889.....	321	316	139	55	23	854
1890.....	398	301	155	54	28	936
1891.....	402	260	161	52	43	918
1892.....	332	239	151	65	52	839
1893.....	282	232	140	75	59	788
1894.....	312	252	161	61	50	836
1895.....	319	276	145	61	54	855
1896.....	330	280	128	63	61	862
1897.....	316	250	120	79	58	853
1898.....	351	244	151	86	49	881
Averages.....	319.6	267.2	144	56.3	37.5	824.5
Percentages.....	38.76	32.41	17.45	6.83	4.55	100 00

It is observed here that, as compared with the averages for all years, the number in each group for 1898 is greater with the one exception of the second group, that is to say, the better class of local mines, which are less numerous this year than formerly. There are 49 mines of the first class, that is, those producing over one hundred thousand tons in the year, and this is the smallest number of mines of this class which has been reported in seven years. On the other hand there are more mines of the second class, producing from 50,000 to 100,000 tons, than has ever been reported. This draws attention to the fact that this is not a classification of mines, nor of their capacity, but of their output for respective years. The excess of mines found this year in the second class mentioned is doubtless made up of mines which normally belong in the first class, but have been hindered during the present year by the strike.

Among the mines which have produced over 100,000 tons there are seven which have produced over 200,000 tons, and one which has produced over 300,000 tons. Following is a list of these:

Mines from which more than 200,000 Tons have been delivered during the year 1898.

Rank.	Companies.	Location.	Tons.
1	St. Louis and Big Muddy Coal Co.....	Carterville.....	319,697
2	Kellyville Coal Co. No. 2.....	Westville.....	248,872
3	Big Muddy Coal and Iron Co. No. 5.....	Murphysboro.....	242,678
4	Kellyville Coal Co. No. 3.....	Westville.....	235,220
5	Muddy Valley Mining and Manufacturing Co.....	Hallidayboro.....	232,238
6	Breese Coal Co.....	Breese.....	222,765
7	Devlin Coal Co.....	Toluca.....	207,967
	Total.....		1,709,457

This is the smallest list of mines in this class which has appeared for several years. Last year the number was 17 and the year before 16. The influence of the strike is observed in this and in the further fact that the mines here enumerated are those which either had no strike, or strikes of least duration. Only one mine in the State reached an output of 300,000 tons; last year there were five of these, and the year before, eight. All these mines except that of the Kellyville Coal Company show gains in output over any previous record, that is to

say, they were gainers rather than losers by the strike. The list of mines from which more than one and less than two hundred thousand tons was raised is as follows:

Mines from which more than 100,000 Tons and less than 200,000 Tons have been delivered during the year 1898.

Rank.	Companies.	Location.	Tons.
1	Spring Valley Coal Co. No. 1.....	Spring Valley.....	197,000
2	Centralia Mining and Manufacturing Co.....	Centralia.....	182,000
3	Taylorville Coal Co.....	Taylorville.....	180,000
4	Chicago-Virden Coal Co. No. 1.....	Virden.....	177,000
5	Pittenger & Davis Mining and Manufacturing Co.	Centralia.....	176,000
6	Pawnee Coal Co.....	Westville.....	173,000
7	Consolidated Coal Co. No. 6.....	Staunton.....	171,000
8	Spring Valley Coal Co. No. 3.....	Spring Valley.....	171,000
9	Chicago, Wilmington and Vermilion Coal Co. No. 1	Streator.....	170,000
10	Coffeen Coal Co.....	Coffeen.....	170,000
11	Odin Coal Co.....	Odin.....	169,000
12	Westville Coal Co.....	Westville.....	165,000
13	Chicago, Wilmington and Vermilion Coal Co. No. 2	Streator.....	163,000
14	Riverton Coal Co.....	Riverton.....	162,000
15	Braceville Coal Co.....	Braceville.....	162,000
16	Citizens' Coal Mining Co., Mine "A".....	Springfield.....	152,000
17	Sandoval Coal Co.....	Sandoval.....	152,000
18	Consolidated Coal Co. No. 8.....	Mt. Olive.....	143,000
19	Whitebreast Fuel Co., Mine "C".....	Dunfermline.....	142,000
20	Madison Coal Co. No. 5.....	Mt. Olive.....	139,000
21	Star Coal Co. No. 2.....	Carbon Hill.....	136,000
22	Wilmington Coal Mining and Manufacturing Co.	Diamond.....	135,000
23	Marquette Coal Co.....	Marquette.....	134,000
24	Big-Four Wilmington Coal Co.....	Coal City.....	131,000
25	Madison Coal Co. No. 2.....	Glen Carbon.....	130,000
26	McLean County Coal Co.....	Bloomington.....	130,000
27	Illinois Central Coal and Salt Co.....	St. Johns.....	128,000
28	Spring Valley Coal Co. No. 2.....	Spring Valley.....	127,000
29	Consolidated Coal Co. No. 10.....	Mt. Olive.....	118,000
30	Big Muddy Coal and Iron Co.....	Murphysboro.....	116,000
31	Carterville Coal Co.....	Carterville.....	113,000
32	Chicago, Wilmington and Vermilion Coal Co.....	Seatonville.....	112,000
33	Starne's Coal Mining Co.....	Springfield.....	112,000

List—Concluded.

Rank.	Companies.	Location.	Tons.
34	Decatur Coal Co. No. 2	Decatur.....	111,602
35	Butler Ballast Co. (stripping).....	Oakwood	110,320
36	Ohio & Mississippi Valley Coal & Mining Co. No. 1	Marion	108,400
37	Chicago-Virden Coal Co. No. 2	Auburn.....	105,106
38	O'Gara-King Coal Co.	Green Ridge	103,400
39	Coal Valley Mining Co. No. 2	Sherrard.....	103,049
40	DuQuoin Union Coal Co.	DuQuoin.....	102,000
41	Pana Coal Co.	Pana	101,738
42	Scott-Wilson Coal Co.	Cartersville.....	100,000
	Total		5,898,596

Fifteen of the mines in this list were last year in the list of greatest producers. One of them, the Braceville Coal Company, was at the head of the list, with an output of 343,518 tons from a 3½-foot seam. The number of mines in this class is about the same as usual, the average for seven years being 43 mines. Likewise the output of the whole shows an average of substantially 140,000 tons for each, for a number of years. In these two groups there are 49 mines with an aggregate product of 7,608,053 tons, that is to say, they represent 5.5 per cent of all mines and 41 per cent of all tons.

The gains and losses in the number of mines in the several inspection districts, during the year, appear in the table following:

TABLE VI—*Gain and Loss in Number of Mines, by Districts.*

District.	No. of mines, 1897.	No. of new mines.	No. of aban- doned mines.	No. of mines, 1898.	Gain.	Loss.
First	85	11	10	86	1	.....
Second	184	27	27	184	.....	.....
Third	185	64	32	217	32	.....
Fourth	95	2	3	94	.....	1
Fifth	79	8	8	79	.....	.....
Sixth	101	1	4	98	.....	3
Seventh	124	7	8	123	.....	1
The State	853	120	92	881	33	5

The net gain of 28 mines here shown is really the difference between 120 mines reported now for the first time and 92 reported abandoned. The greatest gain is found in the Third district, where the coal is chiefly mined for local uses, and this increase represents a number of obscure mines recently discovered by the inspector, as well as those which have been newly opened.

THE OUTPUT FOR THE YEAR.

The volume of the business of the year as represented by the aggregate output of all mines is given in tons by districts in the table below:

TABLE VII—*Output of the State, by Districts.*

District.	Total output. Tons.	Tons of lump.	Tons of other grades.	PERCENTAGE OF—	
				Lump.	Other grades.
First.....	2,209,362	1,716,685	492,677	77.70	22.30
Second.....	2,551,110	2,080,702	470,408	81.57	18.43
Third.....	721,846	590,299	131,547	81.78	18.22
Fourth.....	2,572,059	2,178,132	393,927	82.73	17.27
Fifth.....	3,925,690	2,718,175	1,207,515	69.24	30.76
Sixth.....	3,459,932	2,713,399	746,533	78.42	21.58
Seventh.....	3,159,300	2,211,404	947,897	69.96	30.04
The State.....	18,599,299	14,208,795	4,390,504	76.39	23.61

This shows a total of 18,599,299 tons of coal delivered from the mines of Illinois during the year ended July 1, 1898, of which 14,206,795 tons, or 76.39 per cent, was lump coal and the remainder was coal of all other grades. A glance at the district totals shows their relative importance as producers of coal. The Fifth district, embracing the field in the central part of the State, is most prolific, with an output of 3,925,690 tons, though the Sixth and Seventh, lying south of it, each have totals of over three millions. Of the four northern districts, three produce from two to two and a half millions, while the Third shows a much smaller tonnage. The percentages of lump coal and of other grades in the several districts, are suggestive rather than of the coal and the size of the screen-weighing system of weighing special grades has become possible.

signifies something more than mere screenings or refuse. Formerly the screenings in the First and Second districts were only 7 or 8 per cent of the total output, while in other parts of the State they were 30 or 40 per cent. Now there is approximate uniformity throughout the State, without distinctive geographical differences.

A comparison of the output of districts and of the State for this and the preceding year, is instituted in the following table:

TABLE VIII.—*Output of 1897 and 1898 Compared, by Districts.*

District.	Output, 1897. (Tons.)	Output, 1898. (Tons.)	Gain.	Loss.
First	2,937,980	2,209,362	.....	728,618
Second.....	2,738,408	2,551,110	.....	187,298
Third.....	575,199	721,846	146,647	.....
Fourth.....	2,916,162	2,572,059	.....	344,103
Fifth.....	5,009,102	3,925,690	.....	1,083,412
Sixth.....	3,558,405	3,459,932	.....	98,473
Seventh.....	2,337,502	3,159,300	821,798	.....
The State.....	20,072,758	18,599,299	968,445	2,441,904
Net loss.....			1,473,459 tons.	

It is observed here that the net loss in tonnage for the year is 1,473,459 tons. This, however, is not distributed *pro rata* among the districts; on the other hand, both the Third and the Seventh exhibit material gain over any former output. There is a gain of nearly a million tons in the output of these two districts, and an aggregate loss of nearly two and a half millions in the remaining districts, leaving the net loss as above stated. The Seventh district is in the extreme southern end of the State, and through a combination of circumstances, some of the largest plants in this field were able to continue in operation throughout the general strike. The largest mine in the Third district, and some others, were also fortunate enough to settle with their men without serious delay, and thus secured a good run of business while competing mines were idle. The greatest loss fell upon the Fifth district, which was the storm center of the general strike as well as the scene of much later trouble. The Sixth suffered less than any of the others, but the First, that is, the best field, failed of its normal output by three-

quarters of a million tons. Much of the story of the year's turbulence may be read in the lines of this table, and all of its influence on output.

The gradual development of this industry for a series of seventeen years appears in the following statement of the total tons produced in each of the years since statistics of the subject were first gathered by this Bureau:

TABLE IX.—*Output of the State for Seventeen Years.*

Year.	Total output. (Tons.)	Tons of lump.	Tons of other grades.	PERCENTAGE OF—	
				Lump.	Other grades.
1882.....	11,017,069	9,115,653	1,901,506	.....	.....
1883.....	12,123,456	10,030,991	2,092,465	.....	.....
1884.....	12,208,075	10,101,005	2,107,070	.....	.....
1885.....	11,834,459	9,791,874	2,402,585	.....	.....
1886.....	11,175,241	9,246,435	1,928,806	.....	.....
1887.....	12,423,066	10,278,890	2,144,176	.....	.....
1888.....	14,328,181	11,855,188	2,472,993	.....	.....
1889.....	14,017,298	11,597,963	2,419,335	.....	.....
1890.....	15,274,727	12,638,364	2,636,363	82.74	17.26
1891.....	15,660,696	12,960,224	2,700,474	82.76	17.24
1892.....	17,062,276	14,730,963	3,131,313	82.47	17.53
1893.....	19,949,564	16,112,899	3,836,655	80.77	19.23
1894.....	17,113,576	13,865,284	3,248,292	81.02	18.98
1895.....	17,735,864	14,045,962	3,689,902	79.25	20.75
1896.....	19,786,626	14,210,024	5,576,602	71.86	28.14
1897.....	20,072,758	14,672,241	5,400,517	73.10	26.90
1898.....	18,599,299	14,208,795	4,390,504	76.39	23.61

Aside from its historic value as a consecutive record of the coal production of the State, the feature of this table which arrests attention is the showing made of the respective percentages of lump and other grades of coal of the total product. This separation of grades does not appear until 1890, for the reason that no inquiry was made upon this subject until that year. Since then the proportion of other grades has increased with substantial regularity until 1896; but for this two subsequent years it has, without apparent cause, declined. During the past year, through mutual agreement between operators and miners, a uniform practice has been established of paying for coal on the basis of the gross ton. This, it was

believed, would result in careless mining and an increase in the amount of screenings. On the other hand, this plan permitted the operators to take the coal from the scale and screen and separate it in any manner they chose, without interference or protest from the miners. The result has been that all the softer coals are being handled with much greater care than formerly, with the two-fold object of meeting the demands of a more critical market, and of reducing the wastage arising from old methods of screening. Another fact which should be considered is that both mine-run coal and the size sometimes made and known as egg coal are reported as lump coal and not as other grades. The egg coal, although it passes through a set of bars, is really a high-grade coal of equal, if not greater value than lump, and the mine-run, or unscreened coal, is much more lump than screenings. These facts and the new methods of screening may explain and may occasion in future a gradually increasing percentage of lump, notwithstanding the introduction of the gross-weight basis, and possibly, in a measure, because of it.

One further statement is offered showing not only the annual tonnage, but the number of mines from which it is derived, and the number of men engaged in producing it, for each of a series of years:

TABLE X.—*Output of the State for 17 Years, and the Mines and Men producing it.*

Year.	Mines.	Men.	Tons.	Year.	Mines.	Men.	Tons.
1882.....	704	20,290	11,017,069	1891.....	918	32,951	15,660,698
1883.....	639	23,939	12,123,456	1892.....	839	33,632	17,062,276
1884.....	741	25,575	12,208,075	1893.....	788	35,390	19,949,564
1885.....	778	25,946	11,834,459	1894.....	836	33,477	17,113,576
1886.....	787	25,846	11,175,241	1895.....	874	38,630	17,735,864
1887.....	801	26,804	12,423,066	1896.....	901	37,057	19,786,626
1888.....	822	29,410	14,328,181	1897.....	853	33,788	20,072,758
1889.....	854	30,076	14,017,298	1898.....	881	35,026	18,599,299
1890.....	936	28,574	15,274,727	17 years.....			260,382,233

This is convenient as a reference table, and epitomizes the business of coal mining in Illinois for each year since 1881.

OUTPUT BY COUNTIES.

The entire output of the State, 18,599,299 tons, is drawn from 52 counties, but much the greater part of this is obtained in comparatively few of them. Grouping all counties which have produced

over half a million tons, in the order of the magnitude of their output, and for the two years, 1897 and 1898, affords the following table:

TABLE XI.—*Relative Rank of the Principal Coal Producing Counties, 1898 and 1897.*

Rank.	Counties—1898.	Tons.	Rank.	Counties—1897.	Tons.
1	Sangamon.....	1,763,863	1	Vermilion.....	2,000,638
2	St. Clair.....	1,600,752	2	Macoupin.....	1,975,981
3	Vermilion.....	1,520,699	3	Sangamon.....	1,838,458
4	Macoupin.....	1,264,926	4	St. Clair.....	1,718,194
5	LaSalle.....	1,165,490	5	La Salle.....	1,508,638
6	Williamson.....	915,108	6	Bureau.....	1,145,312
7	Jackson.....	911,194	7	Grundy.....	1,077,576
8	Bureau.....	865,892	8	Christian.....	837,697
9	Perry.....	845,329	9	Madison.....	780,321
10	Grundy.....	796,249	10	Perry.....	689,321
11	Marion.....	714,513	11	Jackson.....	675,212
12	Peoria.....	640,193	12	Williamson.....	669,436
13	Madison.....	630,769	13	Marion.....	626,856
14	Fulton.....	563,397	14	Peoria.....	504,306
	Total.....	14,198,374		Total.....	16,049,562

By this it appears that 14,198,374 tons, or 76.77 per cent of the total output was mined in 14 out of the 52 coal counties; also that in 1897, 16,049,562 tons, or 79.95 per cent of the output of that year was also mined in 14 counties, and in the same counties with one exception. Owing to the disturbing influences of the year, the changes in the order of precedence observed here have but little significance. During the past year the output of every county has hinged, not upon its capacity or natural resources, but upon its relations to the strike. Every county in the list of 1898 shows a diminished output except Williamson, Jackson, Perry and Marion in the south end, and Peoria and Fulton counties, all of which profited by the disturbances in other counties. Christian county, the seat of the Pana mines, has dropped from the list entirely, for obvious reasons, and Fulton county has come into the list for the first time.

A final exhibit relating to the output for the year is given in the table below, containing an alphabetical list of all coal-bearing counties, with the number of mines, men and tons reported for each.

TABLE XII—*Output of the State—by Counties.*

County.	District.	Mines.	Men.	Tons.	County.	District.	Mines.	Men.	Tons.
.....	6	2	172	96,314	Marion.....	6	6	828	714,513
.....	3	16	28	1,940	Marshall.....	2	14	837	286,365
u.....	2	17	2,915	865,892	McDonough...	3	50	315	77,696
an.....	5	1	17	4,893	McLean.....	4	3	321	171,594
.....	4	3	31	2,900	Menard.....	4	10	468	314,169
ian.....	5	6	991	495,616	Mercer.....	2	17	814	384,345
n.....	6	4	467	417,584	Montgomery..	5	6	450	294,667
.....	3	87	1,139	563,397	Morgan.....	5	1	4	1,800
in.....	7	9	52	16,812	Peoria.....	2	61	1,092	640,193
e.....	5	6	23	8,520	Perry.....	7	24	1,325	845,329
ly.....	1	20	3,127	796,249	Randolph....	7	15	421	274,072
ton.....	7	2	8	4,882	Rock Island..	2	26	152	47,490
ck.....	3	4	30	5,300	Saline.....	7	15	144	100,005
.....	2	30	461	159,049	Sangamon....	5	25	2,320	1,763,863
on.....	7	21	1,225	911,194	Schuyler....	3	10	37	11,149
son.....	7	2	57	46,060	Scott.....	5	5	55	21,337
.....	5	1	4	1,680	Shelby.....	5	8	152	68,388
on.....	7	5	16	2,030	Stark.....	2	23	90	21,936
akee....	1	2	190	84,632	St. Clair.....	6	63	2,169	1,600,752
.....	3	34	196	49,819	Tazewell....	4	12	179	84,507
le.....	1	44	3,647	1,165,490	Vermilion....	4	60	2,334	1,520,699
gston...	1	17	301	122,067	Warren.....	3	16	55	12,245
.....	4	3	258	177,935	Washington..	7	4	88	43,808
.....	4	3	344	300,264	Will.....	1	3	112	40,904
pin.....	5	20	2,077	1,264,926	Williamson...	7	26	929	915,108
on.....	6	23	1,026	630,769	Woodford....	2	2	438	145,840

DISPOSITION OF OUTPUT.

hitherto no attempt has been made in these reports to analyze output of mines on the basis of the specific disposition made of It has been assumed in general that the tonnage of so-called ping mines has been shipped, and that of local mines sold to home market. In fact, the shipping mines also have a home e, sometimes a large, and always a profitable one. Likewise all n power plants consume some portion of their output in opera- and in some parts of the field a considerable portion of the

gross tonnage hoisted to the surface and also paid for at the price of good coal, is wholly wasted in the form of refuse screenings for which there is neither use nor sale. Herewith is a table giving the foregoing details of disposition for all the coal of the several districts.

TABLE XIII.—*Disposition of Output—By Districts.*

District.	Total tons.	Tons shipped.	Tons sold to local trade.	Tons consumed (and wasted) at the plant.
First.....	2, 209, 362	1, 759, 512	367, 032	82, 818
Second.....	2, 551, 110	2, 113, 432	350, 468	87, 210
Third.....	721, 846	549, 799	158, 216	13, 800
Fourth.....	2, 572, 059	1, 989, 896	476, 089	106, 000
Fifth.....	3, 925, 690	3, 366, 367	383, 801	175, 300
Sixth.....	3, 459, 932	3, 021, 521	209, 598	228, 813
Seventh.....	3, 159, 300	2, 796, 361	204, 604	158, 200
The State.....	18, 599, 299	15, 596, 888	2, 149, 808	852, 000

Coal mining in Illinois, as an industry, has contributed to the transportation companies during the year fifteen and a half million tons of freight. In a normal year it would have been more, as it will doubtless be in subsequent years. This is the first fact of interest developed by this table. Another is that whereas, eighteen and a half million tons of coal were delivered from the various mines, a little more than two millions of it sufficed for the communities in which the mines are located. The last column contains two elements which can not well be separated—the tons consumed and those wasted. The general fact is, however, that the districts which show the smaller amounts in this column are those in which there is the least or no wastage at all. The following table in which all the above totals are reduced to percentages affords a plainer reading of the facts:

TABLE XIV.—*Percentages of Disposition—By Districts.*

District.	Tons shipped.	Tons sold to local trade.	Tons consumed (and wasted) at the plant.
First.....	79.77	16.65	3.58
Second.....	82.85	13.76	3.39
Third.....	76.17	21.92	1.91
Fourth.....	77.36	18.51	4.13
Fifth.....	85.75	9.77	4.48
Sixth.....	87.33	6.06	6.61
Seventh.....	88.51	6.48	5.01
The State.....	83.86	11.56	4.58

Simply stated, 84 per cent of all our coal is delivered on track for shipment, 11 per cent is sold at the mine, and 5 per cent is consumed and wasted in the industry. In the matter of local sales the percentages range from 6 to 22 in the various districts. The largest percentage is expected and found in the Third district, where 90 per cent of the openings are purely for local uses. In other districts and in general, this percentage must depend upon the density of the population within reach of the mines, and upon the magnitude of the output, both of which conditions vary greatly in different localities.

More significance is found in the percentages of tons consumed and wasted. In the first two districts this percentage is small because in those regions the offal of the screens is not in excess of the demand for it and the consumption of it; consequently there is no waste to account for. In the Third district there is no waste and but little consumption, because there are but few steam-power plants; consequently the percentage is least. In the remaining districts the element of wastage appears in varying degrees, but presumably in the ratio in which the percentages increase.

The local distribution of output may be observed more clearly by an examination of the following table, showing the disposition made of product by counties:

TABLE XV—*Disposition of Output—by Counties.*

FIRST DISTRICT.

County.	Total tons.	Tons shipped.	Tons sold to local trade. ¹	Tons consumed (and wasted) at the plant.
Grundy	796,249	738,912	30,192	27,145
Kankakee	84,632	78,106	4,932	1,542
LaSalle	1,165,490	845,411	*278,880	41,199
Livingston	122,087	67,470	42,587	12,000
Will.....	40,904	29,611	10,301	992
The district.....	2,209,362	1,759,512	367,032	82,818
Percentages	100.00	79.77	16.65	3.62

* 86,000 tons consumed by the producers in the manufacture of zinc.

SECOND DISTRICT.

County.	Total tons.	Tons shipped.	Tons sold to local trade.	Tons consumed (and wasted) at the plant.
Bureau.....	865,892	800,162	31,613	34,117
Henry.....	159,049	48,454	106,415	4,180
Marshall.....	286,365	263,793	16,925	5,647
Mercer	384,345	337,686	29,151	17,509
Peoria.....	640,193	536,068	89,968	15,117
Rock Island	47,490	2,968	42,172	2,350
Stark.....	21,936	.....	21,536	400
Woodford.....	145,840	125,282	12,668	7,890
The district.....	2,551,110	2,113,432	350,468	87,210
Percentages	100.00	82.85	13.76	3.39

Table XV—Continued.

THIRD DISTRICT.

County.	Total tons.	Tons shipped.	Tons sold to local trade.	Tons consumed (and wasted) at the plant.
Brown	1,940	.....	1,940	.....
Fulton	563,397	492,599	58,817	11,981
Hancock	5,600	4,200	1,400	.....
Knox	49,819	.....	49,819	.....
McDonough	77,696	52,460	23,396	1,850
Schuyler	11,149	540	10,609	.....
Warren	12,245	.....	12,245	.....
The district	721,846	549,799	158,216	13,831
Percentages	100.00	76.17	21.92	1.91

FOURTH DISTRICT.

County.	Total tons.	Tons shipped.	Tons sold to local trade.	Tons consumed (and wasted) at the plant.
Cass	2,900	.....	2,900	.....
Logan	177,935	128,666	39,507	9,762
Macon	300,284	204,375	98,463	7,426
McLean	171,594	33,650	119,315	15,629
Menard	314,160	266,336	22,972	.....
Tazewell	84,507	16,725	66,4	.....
Vermilion	1,520,699	1,340,144	128	.....
The district	2,572,059	1,969,996	4	.....
Percentages	100.00	77.36	.....	.....

Table XV—Continued.

FIFTH DISTRICT.

County.	Total tons.	Tons shipped.	Tons sold to local trade.	Tons consumed (and wasted) at the plant.
Calhoun	4,893	.....	4,893	.....
Christian	495,616	441,085	39,193	15,328
Greene	8,520	.....	8,520	.....
Jersey	1,680	.....	1,680	.....
Morgan	1,800	.....	1,800	.....
Macoupin... ..	1,264,926	1,116,363	42,777	105,786
Montgomery	294,667	246,857	40,800	7,010
Sangamon	1,763,863	1,493,021	229,155	41,687
Shelby	68,388	51,376	11,901	5,111
Scott	21,337	17,655	3,082	600
The district	3,925,690	3,366,367	383,801	175,522
Percentages	100.00	85.75	9.77	4.48

SIXTH DISTRICT.

County.	Total tons.	Tons shipped.	Tons sold to local trade.	Tons consumed (and wasted) at the plant.
Bond	96,314	87,488	4,626	4,200
Clinton	417,584	380,043	11,253	26,288
Madison	630,769	519,722	49,834	61,213
Marion	714,513	676,840	21,603	16,070
St. Clair	1,600,752	1,357,428	122,282	121,042
The district	3,459,932	3,021,521	209,598	228,813
Percentages	100.00	87.33	6.06	6.61

Table XV—Concluded.

SEVENTH DISTRICT.

County.	Total tons.	Tons shipped.	Tons sold to local trade.	Tons consumed (and wasted) at the plant.
Gallatin.....	16,812	10,022	5,740	1,050
Hamilton.....	4,882	.....	4,882	.....
Jackson.....	911,194	836,004	30,073	45,117
Jefferson.....	46,060	8,000	36,060	2,000
Johnson.....	2,030	840	1,190	.....
Perry.....	845,329	762,534	40,140	42,655
Randolph.....	274,072	249,236	17,117	7,719
Saline.....	100,005	69,102	29,053	1,850
Washington.....	43,808	24,900	16,832	2,076
Williamson.....	915,108	835,723	23,517	55,868
The district.....	3,159,300	2,796,361	204,604	158,335
Percentages.....	100.00	88.51	6.48	5.01

An analysis of the tonnage of shipping mines only is found in the table following:

TABLE XVI.—Disposition of the Output of Shipping Mines only—By Districts.

DISTRICT.	Total output of shipping mines.	PERCENTAGE OF		
		Tons shipped.	Tons sold to local trade.	Tons consumed (and wasted) at the plant.
First.....	2,018,150	87.18	9.20	3.62
Second.....	2,260,610	93.49	3.02	3.49
Third.....	567,296	96.91	0.83	2.26
Fourth.....	2,409,702	82.58	13.42	4.00
Fifth.....	3,891,294	86.51	8.98	4.51
Sixth.....	3,407,491	88.67	4.61	6.72
Seventh.....	3,101,018	90.17	4.75	5.08
The State.....	17,655,561	15,596,888	1,235,700	822,973
Percentages.....	100.00	88.46	6.90	4.64

Preceding tables have defined for the entire output the proportions shipped, sold at home and consumed; but, in fact, no part of the product of local mines is shipped, and a part of the product of all

shipping mines is sold to the local consumer. This justifies the drafting of the above table, which shows how the tonnage of shipping mines alone is disposed of. Naturally these percentages differ but little from those in a former table, as the tonnage of shipping mines is but little less than the total output. The principal difference is in the percentage sold to the local trade, and the respective figures are 11.56 per cent of all coal and 6.90 per cent of the coal raised by the shipping mines.

DISTRIBUTION OF COAL TO RAILROADS.

This year, for the first time, mine owners have been asked to report the number of tons shipped on each of the railroads to which they are tributary, including coal delivered to locomotives for consumption. The information thus obtained has been condensed into the following statement of the total tonnage delivered, during the year, to each of thirty-six railroads, arranged in the order of their importance as coal carriers:

Illinois Coal delivered to Illinois Railroads—1898. (On Cars for Transportation and to Locomotives for Consumption.)

1 Illinois Central Railroad Co.	4, 113, 660	ton
2 Chicago & Eastern Illinois Railroad Co.	1, 335, 842	"
3 Wabash Railroad Co.	1, 285, 493	"
4 Chicago, Burlington & Quincy Railroad Co.	1, 142, 130	"
5 Chicago & Alton Railroad Co.	1, 116, 563	"
6 Baltimore & Ohio Southwestern Railroad Co.	729, 999	"
7 Elgin, Joliet & Eastern Railway Co.	585, 018	"
8 Chicago & Northwestern Railway Co.	466, 818	"
9 Atchison, Topeka & Santa Fé Railroad Co.	449, 236	"
10 Chicago, Peoria & St. Louis Railway	447, 136	"
11 Mobile & Ohio Railroad Co.	419, 222	"
12 Louisville & Nashville Railroad Co.	371, 291	"
13 Cleveland, Cincinnati, Chicago & St. Louis Railway Co.	370, 651	"
14 Louisville, Evansville & St. Louis Railroad Co.	367, 510	"
15 St. Louis, Peoria & Northern Railway Co.	329, 940	"
16 Chicago, Rock Island & Pacific Railway Co.	285, 408	"
17 Terre Haute & Indianapolis Railroad Co.	251, 755	"
18 Toledo, Peoria & Western Railway Co.	243, 189	"
19 Toledo, St. Louis & Kansas City Railroad Co.	237, 860	"
20 Peoria & Pekin Union Railway	202, 043	"
21 Rock Island & Peoria Railway Co.	187, 883	"

Statement—Concluded.

22	St. Louis, Chicago & St. Paul Railway Co.....	146,409 tons
23	Iowa Central Railway Co.....	142,314 "
24	Peoria, Decatur & Evansville Railway Co.....	56,441 "
25	Indiana, Illinois & Iowa Railroad Co.....	47,295 "
26	Wabash, Chester & Western Railroad Co.....	39,585 "
27	St. Louis, Belleville & Southern Railway Co.....	38,500 "
28	Jacksonville & St. Louis Railway	34,999 "
29	Centralia & Chester Railroad Co.....	25,975 "
30	Fulton County Narrow Gauge Railway Co.....	23,100 "
31	Lake Erie & Western Railroad Co.....	23,100 "
32	Indiana, Decatur & Western Railroad Co.....	21,000 "
33	Toluca & Eastern Railroad Co.....	17,900 "
34	Belleville & Carondelet Railroad Co.....	8,199 "
35	Pawnee Railroad.....	3,321 "
36	Litchfield, Carrollton & Western Railroad Co.....	1,448 "
	Total	15,568,173 "

These figures represent only that coal which originates on the several lines and not that which is received by one road from another for transportation. It appears that the first five roads on the list have received from their mines 8,993,688 tons, or more than half of all the coal shipped; that is to say, more than all the 31 other roads together. Of these five, the Illinois Central, at the head of the list, handles nearly as much as the other four great coal roads together, and, in fact, more than one-fourth, or 26.42 per cent of all the coal carried by all the roads. The amount of the original coal traffic of any road depends, of course, upon its mileage, the mineral resources of the territory through which it passes and the nature of the markets to which it has access. Presumably the tonnage which flows to each of the Illinois roads is an approximate measure of the above advantages which each enjoys.

Geographically the sources from which each of these roads receives its coal is shown in the following table, giving the tonnage contributed by each county to each road:

TABLE XVII—*Railroads which have hauled the Coal Output of t
State, and the tonnage by Counties contributed to each.*

Illinois Central Railroad Co.—			
Kankakee.....	28,328 tons.		
LaSalle.....	227,944 "		
Livingston.....	16,400 "		
Marshall.....	42,500 "		
Woodford.....	64,700 "		
Logan.....	50,265 "		
Macon.....	65,065 "		
McLean.....	12,800 "		
Christian.....	232,564 "		
Sangamon.....	343,980 "		
Shelby.....	51,376 "		
Marion.....	623,788 "		
St. Clair.....	348,042 "		
Jackson.....	675,793 "		
Perry.....	654,449 "		
Randolph.....	50,123 "		
Washington.....	14,400 "		
Williamson.....	610,643 "		
Chicago & Eastern Illinois Railroad Co.—			4,113,660 ton
Marion.....	6,000 tons.		
Vermilion.....	1,104,762 "		
Williamson.....	225,080 "		
Wabash Railroad Co.—			1,335,842 ton
Kankakee.....	26,610 tons.		
LaSalle.....	570 "		
Livingston.....	288 "		
Macon.....	118,310 "		
Vermilion.....	119,363 "		
Christian.....	150,500 "		
Macoupin.....	357,889 "		
Montgomery.....	27,451 "		
Sangamon.....	472,055 "		
Madison.....	12,457 "		
Chicago, Burlington & Quincy Railroad Co.—			1,285,493 ton
LaSalle.....	242,511 tons.		
Livingston.....	1,137 "		
Bureau.....	188,335 "		
Henry.....	23,454 "		
Mercer.....	152,120 "		
Peoria.....	116,110 "		
Fulton.....	343,608 "		
Hancock.....	4,200 "		
McDonough.....	52,460 "		
Schuyler.....	540 "		
Scott.....	17,655 "		
Chicago & Alton Railroad Co.—			1,142,130 ton
Grundy.....	106,444 tons.		
LaSalle.....	74,318 "		
Livingston.....	502 "		
Will.....	29,611 "		
Logan.....	28,960 "		
McLean.....	750 "		
Menard.....	115,286 "		
Macoupin.....	459,819 "		
Sangamon.....	300,873 "		
Baltimore & Ohio Southwestern Railroad Co.—			1,116,563 ton
Christian.....	13,991 tons.		
Sangamon.....	76,293 "		
Clinton.....	380,043 "		
Marion.....	26,525 "		
St. Clair.....	233,137 "		
Elgin, Joliet & Eastern Railway Co.—			729,989 ton
Grundy.....	585,018 tons.		
Chicago & Northwestern Railway Co.—			585,018 ton
Bureau.....	466,818 tons.		
Atchison, Topeka & Santa Fé Railroad Co.—			466,818 ton
Grundy.....	45,885 tons.		
LaSalle.....	143,351 "		
Livingston.....	6,176 "		
Marshall.....	193,242 "		
Woodford.....	60,582 "		
			449,236

Table XVII—Continued.

Chicago, Peoria & St. Louis Railway—			
Menard.....	151,050 tons.		
Macoupin.....	74,082 ..		
Sangamon.....	138,878 ..		
Madison.....	83,126 ..		
Mobile & Ohio Railroad Co.—			447,136 tons
St. Clair.....	11,398 tons.		
Jackson.....	160,211 ..		
Perry.....	68,000 ..		
Randolph.....	179,613 ..		
Louisville & Nashville Railroad Co.—			419,222 tons.
St. Clair.....	253,269 tons.		
Gallatin.....	10,022 ..		
Jefferson.....	3,000 ..		
Washington.....	5,000 ..		
Cleveland, Cincinnati, Chicago & St. Louis Railway Co.—			371,291 tons.
Grundy.....	1,439 tons.		
LaSalle.....	2,470 ..		
McLean.....	4,000 ..		
Vermilion.....	116,019 ..		
Christian.....	44,040 ..		
Macoupin.....	69,972 ..		
Montgomery.....	62,769 ..		
Johnson.....	840 ..		
Saline.....	69,102 ..		
Louisville, Evansville & St. Louis Railroad Co.—			370,651 tons.
Marion.....	13,923 tons.		
Jefferson.....	5,090 ..		
St. Clair.....	348,587 ..		
St. Louis, Peoria and Northern Railway Co.—			367,510 tons.
Macoupin.....	131,391 tons.		
Sangamon.....	11,212 ..		
Madison.....	187,337 ..		
Chicago, Rock Island and Pacific Railway Co.—			329,940 tons.
Grundy.....	126 tons.		
La Salle.....	130,122 ..		
Bureau.....	145,009 ..		
Marshall.....	10,151 ..		
Terre Haute and Indianapolis Railroad Co.—			285,408 tons.
Bond.....	8,647 tons.		
Madison.....	226,812 ..		
St. Clair.....	16,296 ..		
Toledo, Peoria and Western Railway Co.—			251,755 tons.
Livingston.....	42,967 tons.		
Peoria.....	132,222 ..		
Fulton.....	67,000 ..		
McLean.....	1,000 ..		
Toledo, St. Louis and Kansas City Railroad Co.—			243,189 tons.
Montgomery.....	149,470 tons.		
Bond.....	78,400 ..		
Madison.....	9,990 ..		
Peoria and Pekin Union Railway—			237,860 tons.
Peoria.....	200,318 tons.		
Tazewell.....	1,725 ..		
Rock Island and Peoria Railway Co.—			202,043 tons.
Mercer.....	185,565 tons.		
Rock Island.....	2,268 ..		
St. Louis, Chicago and St. Paul Railway Co.—			187,833 tons.
Sangamon.....	146,409 tons.		
Iowa Central Railway Co.—			146,409 tons.
Peoria.....	85,423 tons.		
Fulton.....	58,891 ..		
Peoria, Decatur and Evansville Railway Co.—			142,314 tons.
Logan.....	49,441 tons.		
Tazewell.....	7,000 ..		
			56,441 tons.

Table XVII.—Concluded.

Indiana, Illinois and Iowa Railroad Co.—		
Kankakee.....	23, 170 tons.	
La Salle.....	24, 125 "	47, 295 tons.
Wabash, Chester and Western Railroad Co.—		
Perry.....	39, 585 tons.	39, 585 tons.
St. Louis, Belleville and Southern Railway Co.—		
St. Clair.....	38, 500 tons.	38, 500 tons.
Jacksonville and St. Louis Railway—		
Macoupin.....	21, 762 tons.	
Montgomery.....	7, 167 "	
Bond.....	441 "	
Marion.....	5, 629 "	34, 999 tons.
Centralia and Chester Railroad Co.—		
Marion.....	975 tons.	
Randolph.....	19, 500 "	
Washington.....	5, 500 "	25, 975 tons.
Fulton County Narrow Gauge Railway Co.—		
Fulton.....	23, 100 tons.	23, 100 tons.
Lake Erie and Western Railroad Co.—		
McLean.....	15, 100 tons.	
Tazewell.....	8, 000 "	23, 100 tons.
Indiana, Decatur and Western Railroad Co.—		
Macon.....	21, 000 tons.	21, 000 tons.
Toluco and Eastern Railroad Co.—		
Marshall.....	17, 900 tons.	17, 900 tons.
Belleville and Carondelet Railroad Co.—		
St. Clair.....	8, 199 tons.	8, 199 tons.
Pawnee Railroad—		
Sangamon.....	3, 321 tons.	3, 321 tons.
Litchfield, Carrollton and Western Railroad Co.—		
Macoupin.....	1, 448 tons.	1, 448 tons.
Total by rail.....		15, 568, 173 tons.
SHIPPED BY WATER.		
Rock River, Henry county.....	25, 000 tons.	
Illinois River, Peoria Co.....	3, 015 "	
Mississippi River, Rock Island County.....	700 "	28, 715 tons.
Total shipped.....		15, 596, 888 tons.

The Illinois Central Company draws its coal from eighteen counties distributed along its main line, from LaSalle county on the north to Williamson county in the extreme south. Four of these counties furnish this road with over 600,000 tons each and eight of them over 200,000 tons each per annum. On the other hand, the Chicago & Eastern Illinois Company has its tonnage, in effect, from two counties only, receiving over a million tons from Vermilion county and a quarter of a million from Williamson county. The Wabash Company has ten prolific counties, the most of which are the rich coal counties of the central part of the State, while the Burlington finds its coal in eleven counties, all but one of which are west of the Illinois river. The Alton road penetrates rich coal fields in nine counties,

situated on its main line to St. Louis. The so-called Big Four Company also gets coal from nine counties rather widely distributed over the State. The Elgin, Joliet & Eastern takes over half a million tons from Grundy county alone. The Baltimore & Ohio Southwestern gets over three-quarters of a million tons from five counties on its lines in the southern part of the State. Eight roads have coal from only one county each; six have two counties each; six have three counties each, and six have four counties each.

As a complement to the presentation of the tonnage of railroads by counties, the following table exhibits the tonnage of counties by the railroads which handle it:

TABLE XVIII—Counties which have produced the Commercial Coal of the State and the tonnage delivered to the several Railroads in each.

Sangamon County—			
Wabash	472,055 tons.		
Illinois Central	343,980 ..		
Chicago & Alton	300,873 ..		
St. Louis, Chicago & St. Paul	146,409 ..		
Chicago, Peoria & St. Louis	138,878 ..		
Baltimore & Ohio Southwestern	76,293 ..		
St. Louis, Peoria & Northern	11,212 ..		
Pawnee	3,321 ..		
		1,493,021 tons.	
St. Clair County—			
Louisville & Nashville	353,269 tons.		
Louisville, Evansville & St. Louis	348,587 ..		
Illinois Central	348,042 ..		
Baltimore & Ohio Southwestern	233,137 ..		
St. Louis, Belleville & Southern	38,500 ..		
Terre Haute & Indianapolis	16,296 ..		
Mobile & Ohio	11,398 ..		
Belleville & Carondelet	8,199 ..		
		1,357,428 tons.	
Vermilion County—			
Chicago & Eastern Illinois	1,104,762 tons.		
Wabash	119,363 ..		
Cleveland, Cincinnati, Chicago & St. Louis	116,019 ..		
		1,340,144 tons.	
Macoupin County—			
Chicago & Alton	459,819 tons.		
Wabash	357,889 ..		
St. Louis, Peoria & Northern	131,391 ..		
Chicago, Peoria & St. Louis	74,082 ..		
Cleveland, Cincinnati, Chicago & St. Louis	69,973 ..		
Jacksonville & St. Louis	21,762 ..		
Litchfield, Carrollton & Western	1,448 ..		
		1,116,363 tons.	
LaSalle County—			
Chicago, Burlington & Quincy	242,511 tons.		
Illinois Central	227,944 ..		
Atchison, Topeka & Santa Fe	143,351 ..		
Chicago, Rock Island & Pacific	130,122 ..		
Chicago & Alton	74,318 ..		
Indiana, Illinois & Iowa	24,125 ..		
Cleveland, Cincinnati, Chicago & St. Louis	2,470 ..		
Wabash	570 ..		
		845,411 tons.	
Jackson County—			
Illinois Central	675,793 tons.		
Mobile & Ohio	160,211 ..		
		836,004 tons.	
Williamson County—			
Illinois Central	610,643 tons.		
Chicago & Eastern Illinois	225,080 ..		
		835,723 tons.	

Table XVIII—Continued.

Bureau County—			
Chicago & Northwestern.....	466,818 tons.		
Chicago, Burlington & Quincy.....	193,335 ..		
Chicago, Rock Island & Pacific.....	145,009 ..		800,162
Perry County—			
Illinois Central.....	654,949 tons.		
Mobile & Ohio.....	68,000 ..		
Wabash, Chester & Western.....	39,586 ..		762,534
Grundy County—			
Elgin, Joliet & Western.....	585,018 tons.		
Chicago & Alton.....	106,444 ..		
Atchison, Topeka & Santa Fé.....	45,885 ..		
Cleveland, Cincinnati, Chicago & St. Louis.....	1,439 ..		
Chicago, Rock Island & Pacific.....	126 ..		738,912
Marion County—			
Illinois Central.....	623,788 tons.		
Baltimore & Ohio Southwestern.....	26,525 ..		
Louisville, Evansville & St. Louis.....	13,923 ..		
Chicago & Eastern Illinois.....	6,000 ..		
Jacksonville & St. Louis.....	5,629 ..		
Centralia & Chester.....	975 ..		676,840
Peoria County—			
Peoria & Pekin Union.....	200,318 tons.		
Toledo, Peoria & Western.....	132,222 ..		
Chicago, Burlington & Quincy.....	116,110 ..		
Iowa Central.....	63,423 ..		
Illinois River.....	3,015 ..		535,068
Madison County—			
Terre Haute & Indianapolis.....	226,812 tons.		
St. Louis, Peoria & Northern.....	187,337 ..		
Chicago, Peoria & St. Louis.....	83,126 ..		
Toledo, St. Louis & Kansas City.....	12,457 ..		
Wabash.....	9,990 ..		519,722
Fulton County—			
Chicago, Burlington & Quincy.....	343,608 tons.		
Toledo, Peoria & Western.....	67,000 ..		
Iowa Central.....	58,891 ..		
Fulton County Narrow Gauge.....	23,100 ..		492,599
Christian County—			
Illinois Central.....	332,564 tons.		
Wabash.....	150,500 ..		
Cleveland, Cincinnati, Chicago & St. Louis.....	44,040 ..		
Baltimore & Ohio Southwestern.....	13,991 ..		441,095
Clinton County—			
Baltimore & Ohio Southwestern.....	380,043 tons.		380,043
Mercer County—			
Rock Island & Peoria.....	185,565 tons.		
Chicago, Burlington & Quincy.....	152,120 ..		337,685
Menard County—			
Chicago, Peoria & St. Louis.....	151,050 tons.		
Chicago & Alton.....	115,286 ..		266,336
Marshall County—			
Atchison, Topeka & Santa Fé.....	193,242 tons.		
Illinois Central.....	42,500 ..		
Toluca & Eastern.....	17,900 ..		
Chicago, Rock Island & Pacific.....	10,151 ..		263,793
Randolph County—			
Mobile & Ohio.....	179,613 tons.		
Illinois Central.....	50,123 ..		
Centralia & Chester.....	19,500 ..		249,236
Montgomery County—			
Toledo, St. Louis & Kansas City.....	149,470 tons.		
Cleveland, Cincinnati, Chicago & St. Louis.....	62,769 ..		
Wabash.....	27,451 ..		
Jacksonville & St. Louis.....	7,167 ..		246,857

Table XVIII—Continued.

Macon County—			
Wabash	118,310 tons.		
Illinois Central	65,065 "		
Indiana, Decatur & Western	21,000 "		204,375 tons.
Logan County—			
Illinois Central	50,265 tons.		
Peoria, Decatur & Evansville	49,441 "		
Chicago & Alton	28,960 "		128,666 tons.
Woodford County—			
Illinois Central	64,700 tons.		
Atchison, Topeka & Santa Fé	60,582 "		125,282 tons.
Bond County—			
Toledo, St. Louis & Kansas City	78,400 tons.		
Terre Haute & Indianapolis	8,647 "		
Jacksonville & St. Louis	441 "		87,488 tons.
Kankakee County—			
Illinois Central	28,328 tons.		
Wabash	26,610 "		
Indiana, Illinois & Iowa	23,170 "		78,108 tons.
Saline County—			
Cleveland, Cincinnati, Chicago & St. Louis	69,102 tons.		69,102 tons.
Livingston County—			
Toledo, Peoria & Western	42,967 tons.		
Illinois Central	16,400 "		
Atchison, Topeka & Santa Fé	6,176 "		
Chicago, Burlington & Quincy	1,137 "		
Chicago & Alton	502 "		
Wabash	288 "		67,470 tons.
McDonough County—			
Chicago, Burlington & Quincy	52,460 tons.		52,460 tons.
Shelby County—			
Illinois Central	51,376 tons.		51,376 tons.
Henry County—			
Chicago, Burlington & Quincy	23,454 tons.		
Rock River	25,000 "		48,454 tons.
McLean County—			
Lake Erie & Western	15,100 tons.		
Illinois Central	12,800 "		
Cleveland, Cincinnati, Chicago & St. Louis	4,000 "		
Toledo, Peoria & Western	1,000 "		
Chicago & Alton	750 "		33,650 tons.
Will County—			
Chicago & Alton	29,611 tons.		29,611 tons.
Washington County—			
Illinois Central	14,400 tons.		
Centralia & Chester	5,500 "		
Louisville & Nashville	5,000 "		24,900 tons.
Scott County—			
Chicago, Burlington & Quincy	17,655 tons.		17,655 tons.
Tazewell County—			
Lake Erie & Western	8,000 tons.		
Peoria, Decatur & Evansville	7,060 "		
Peoria & Pekin Union	1,725 "		16,725 tons.
Gallatin County—			
Louisville & Nashville	10,022 tons.		10,022 tons.
Jefferson County—			
Louisville, Evansville & St. Louis	5,000 tons.		
Louisville & Nashville	3,000 "		8,000 tons.
Hancock County—			
Chicago, Burlington & Quincy	4,200 tons.		4,200 tons.

Table XVIII—Continued.

Rock Island County— Rock Island & Peoria.....	2,268 tons.	2,968 tons.
Mississippi River.....	700	
Johnson County— Cleveland, Cincinnati, Chicago & St. Louis.....	840 tons.	810 tons.
Schuyler County— Chicago, Burlington & Quincy.....	540 tons.	
		540 tons.
The State.....		15,596,898 tons.

Of the four principal coal-bearing counties which export more than a million tons each per year, Sangamon and St. Clair have shipping facilities over eight railroads each, and Macoupin over seven; but Vermilion has only three, and gives over a million tons to a single one of them. LaSalle county has eight outlets by rail; two counties have six each, four have five, four have four, and ten have only one each.

THE POSSIBLE OUTPUT OF EXISTING MINES.

The contrast between the actual output of the mines of the State and the possible output of the same mines under favorable conditions is illustrated in the following table. This table is the result of a special inquiry addressed to the operator of each mine, asking for the possible producing capacity of his plant if operated continuously with his present equipment. This, it will be observed, is not an estimate based on what might be produced if the hauling, hoisting and handling facilities should be enlarged to their limit. A summary of the estimates made in response to this inquiry is presented in the following totals by districts:

TABLE XIX—*Comparison of Actual Output with Possible Output of Existing Mines, by Districts.*

District.	Output—1898. (Tons.)	Possible output. (Tons.)	Per cent of possible increase.
First.....	2,209,362	5,121,710	131.82
Second.....	2,551,110	5,908,740	131.61
Third.....	721,846	1,272,500	76.28
Fourth.....	2,572,059	5,633,425	119.05
Fifth.....	3,925,690	9,537,550	142.95
Sixth.....	3,459,932	7,180,900	107.54
Seventh.....	3,159,300	6,428,100	103.47
The State.....	18,593,299	41,082,925	120.88

The present capacity of existing mines is here found to be over forty million tons, or more than twice the actual output reported for the year. But this year is not a normal one, and, for purposes of comparison, an output of something over twenty millions should be assumed as representing a normal demand. Even with this understanding, the legitimate deduction remains that the mining industry as at present developed in this State is equal to an output twice as great as it has yet been called upon to deliver. The capacity of increase in output as represented by the percentages of the table appears largest in the First, Second, Fourth and Fifth districts; least in the Third, and about 100 per cent in the Sixth and Seventh. Great variation is naturally found upon an examination of the reports of individual mines, as they appear in the subsequent county tables. Some have a capacity for increase five and even seven fold; others, none whatever, owing to the fact that the mineral is nearly or quite exhausted. Fourteen selected mines which were active during the greater part of the general strike claim a possible production only 26 per cent in excess of that which is reported for them for the year. Yet the computed average for the State at large shows that the given output might be increased by 120.88 per cent with present equipment, if the need should arise for it. It should be observed in this connection that the majority of first-class plants, which are the real producers of commercial coal, are capable of indefinite expansion to meet any extraordinary demands which may arise in excess of their present capacity. An inquiry as to the greatest possible development of plant and enlargement of output would certainly have produced totals very much larger than those given, and, it is possible, such greater totals would be more nearly a true exponent of the real capacity of Illinois mines.

DAYS OF ACTIVE OPERATION.

The customary analysis of the days of active operations for this industry for the year affords the following results for the several districts and the State:

TABLE XX.—*Days of Active Operation, by Districts.*

District.	AVERAGE WORKING DAYS OF ALL MINES.			AVERAGE WORKING DAYS OF SHIPPING MINES ONLY.		
	Mines.	Men.	Days.	Mines.	Men.	Days.
First.....	86	7,377	163.3	39	7,011	144.5
Second.....	184	6,799	161.3	48	5,866	171.1
Third.....	217	1,800	135.4	21	1,141	187.5
Fourth.....	94	4,030	162.3	39	3,608	190
Fifth.....	79	6,093	191.6	51	5,976	172.3
Sixth.....	98	4,662	182	72	4,518	170.6
Seventh.....	123	4,265	135.9	59	4,077	186.8
The State.....	881	35,026	156.8	329	32,297	174.7

The level average for the working time of all mines is here given as 156.8 days for each; last year this average was 167.1 days. The average working days for 329 shipping mines is 174.7 days; last year the average for this class of mines was 185.5 days. This decline in average activity is, of course, accounted for by the strike which prevailed so long throughout the State, and the average loss of time would doubtless have been much more had not the activity been so great and continuous at points not affected by the strike, and at all points after the strike was settled.

Considered by districts, the average days of activity are found to range from 144.5 in the First district, to 190 days in the Fourth, with other districts showing averages between these. In the First district, and in the Fifth and Sixth, it will be observed that the average for all mines is greater than that for shipping mines. This arises from the fact that, owing to the unusual conditions, the local mines in these districts were active for longer periods than the larger mines; in the other districts this experience was reversed. These figures represent the average number of days each mine was running, and are derived by dividing the sum of all the active days reported by the number of mines reporting them. This computation consequently does not bring out the actual or average days of work of individual miners, though the result is an approximate statement of the working time of men employed.

An examination of the following table affords an opportunity to compare the experience of former years with that of this year:

TABLE XXI—*Days of Active Operation for a Series of Years, by Districts.*

District.	1893.		1894.		1895.		1896.		1897.		1898.	
	Mines..	Days...	Mines..	Days...	Mines..	Days...	Mines..	Days...	Mines..	Days...	Mines..	Days...
First	38	220	35	161.5	26	159.4	38	166	35	166.9	39	144.5
Second	26	228	26	171	28	176.1	46	198	46	183.2	48	171.1
Third	80	215	81	182.9	66	173	27	157	19	158.6	21	187.5
Fourth	56	251	63	194.7	64	188.5	40	210	36	207.7	39	190
Fifth	101	233	90	186.9	94	192.6	50	197	50	202.1	51	172.3
Sixth							72	196	73	194.8	72	170.6
Seventh							49	164	51	165.5	59	186.8
The State	301	229.6	295	183.1	278	182.2	322	186	310	185.5	329	174.7

This table relates to shipping mines only and shows the number of these on which each average is based. The reports of 1894 were the first after the financial depression which began in 1893, and as a result of which coal mining as an industry dropped from an average activity represented by 230 days' operations in the year to 183. From this low average the business has never yet recovered, and owing to the strike of 1897, it suffered the still greater loss of time indicated by this year's average. Comparing, however, the last two years by districts, it is discovered that in the Third and the Seventh the mines enjoyed a greater duration of activity during the strike year than in the former year, and that the real loss of time was sustained by the mines of the other districts.

AVERAGE VALUE OF COAL.

The average value of coal per ton at the mines, as reported by the several mine owners, is arrived at by dividing the net proceeds of all sales made of each grade by the number of tons of each grade sold. These values for individual mines are combined by proper calculations into averages for counties, for districts and for the State, the two last of which appear in the table here given:

TABLE XXII—*Average Value of Coal Per Ton at the Mine, by Districts.*

District.	Total tons.	Av. value per ton.	Tons of lump coal.	Av. value per ton.	Tons of other grades.	Av. value per ton.
First	2,209,362	\$0.9163	1,716,685	\$1.1045	492,677	\$0.2579
Second	2,551,110	1.0229	2,080,702	1.16	470,408	.4174
Third	721,846	.9818	590,299*	1.108	131,547	.4114
Fourth.....	2,572,059	.8307	2,178,132	.9005	393,927	.5242
Fifth.....	3,925,690	.6564	2,718,175	.80	1,207,515	.3202
Sixth.....	3,459,932	.6499	2,713,399	.746	746,533	.2994
Seventh	3,159,300	.7161	2,211,403	.868	947,897	.3777
The State.....	18,599,299	\$0.7832	14,208,795	\$0.918	4,390,504	\$0.3535

The average value of lump coal per ton for all the year, or for that part of the year which remained after the close of the strike, is found to have been 91.8 cents at the mine. This is 6.6 cents per ton greater than the average for the preceding year. It is also the mean between the highest average value for the year, \$1.16 per ton in the Second district, and the lowest, 74.6 cents per ton in the Sixth district.

This constitutes some evidence of a reaction from the downward tendency in prices which has prevailed for so many years, and still further evidence of the permanency of such reaction and of a general upward movement is gathered from the experience of the trade since the above figures were reported. Compared by districts, it is found that the average gain has been about ten cents per ton in the four southern districts and only about three cents in the northern districts. At the time these reports were made, however, the industry had not yet fully adjusted itself to the new conditions which resulted from the strike, and it is probable that the added experience of the current year will be necessary to develop all the effects of the terms of settlement then made.

The range of average values for a series of years is exhibited herewith:

TABLE XXIII—*Average Value of Lump Coal Per Ton at the Mine for a Series of Years, 1882-1898.*

Year.	Tons of lump coal produced.	Average value per ton.	Year.	Tons of lump coal produced.	Average value per ton.
1882.....	9, 115, 653	\$1.51	1891.....	12, 900, 224	\$1.008
1883.....	10, 030, 991	1.48	1892.....	14, 730, 963	1.029
1884.....	10, 101, 005	1.26	1893.....	16, 112, 899	1.025
1885.....	9, 791, 874	1.17	1894.....	13, 865, 284	1.009
1886.....	9, 246, 435	1.10	1895.....	14, 045, 962	.932
1887.....	10, 278, 890	1.085	1896.....	13, 990, 924	.899
1888.....	11, 855, 188	1.123	1897.....	14, 672, 241	.852
1889.....	11, 597, 963	1.078	1898.....	14, 208, 795	.918
1890.....	12, 638, 364	1.019			

This is a recapitulation of the annual output of the tons of lump coal for each of seventeen years, with the average value of the same per ton at the mine for each of the years, as computed in this office. This continued, though not always uniform, decline in the value of the product of mines from year to year in this State, and presumably throughout the country, has often been a matter of observation and comment in these reports, and it is gratifying to be able to record a figure for this year which is not less than all the others.

MINE EMPLOYEES.

The customary enumeration of employés of mines results in the following totals for districts and the State:

TABLE XXIV.—*Analysis of Employés, by Districts.*

DISTRICT.	EMPLOYEES.				
	Miners.	Others under-ground.	Total under-ground.	Above ground.	Aggregate
First.....	5, 935	948	6, 883	494	7, 377
Second.....	5, 336	850	6, 186	613	6, 799
Third.....	1, 502	142	1, 644	156	1, 800
Fourth.....	2, 921	743	3, 664	366	4, 030
Fifth.....	4, 424	1, 013	5, 437	656	6, 093
Sixth.....	3, 445	642	4, 087	575	4, 662
Seventh.....	2, 957	744	3, 701	584	4, 285
The State.....	28, 520	5, 082	31, 602	3, 424	35, 026

The whole number of employ  s here reported is 35,026; last year the number was 33,788, or 1,238 less than the present number. The fact that an increase in employ  s is reported for a disastrous year and a small output, is not as inconsistent as it appears; it is, in fact, a case of cause and effect and another of the results of the strike. These totals represent the average number under employment during the year, and the average is reached by dividing the sum of all the men on all pay-rolls by the number of pay-rolls. With the resumption of business at the close of the strike the demand for men was as unusual as the demand for coal, and this naturally led to an increase of the working force wherever it was possible to acquire it. The semi-monthly pay-rolls consequently grew and the resultant average is larger, though the output is less. Comparing this table with that of last year, it is found that in the First and Second districts the number of employ  s is less, but that in all others, especially in the southern part of the State, the number is greater, than formerly. The separation of employ  s underground from those above, and miners from others, shows that substantially 10 per cent of all the mine workmen are on the surface, and that 16 per cent of those underground are laborers of various kinds rather than miners.

The number of employ  s reported for each of seventeen years is given in the table below by districts:

TABLE XXV.—*Employ  s for Sixteen Years.*

Year.	First District.	Second District.	Third District.	Fourth District.	Fifth District.	Sixth District.	Seventh District.	The State.
1883.....	7,566	3,211	4,070	4,417	4,675	.....	.....	23,939
1884.....	8,013	3,616	5,018	4,781	4,147	.....	.....	25,575
1885.....	7,463	3,391	5,213	4,960	4,429	.....	.....	25,446
1886.....	7,613	3,599	4,870	5,197	4,567	.....	.....	25,846
1887.....	7,915	4,068	4,903	4,934	4,984	.....	.....	26,804
1888.....	8,623	4,914	5,250	5,086	5,537	.....	.....	29,410
1889.....	9,014	4,498	5,117	5,679	5,764	.....	.....	30,076
1890.....	8,258	4,099	5,171	5,685	5,361	.....	.....	28,574
1891.....	9,128	5,069	6,458	5,881	6,395	.....	.....	32,951
1892.....	9,572	4,865	6,453	6,542	6,200	.....	.....	33,632
1893.....	8,831	5,974	6,964	7,021	6,780	.....	.....	35,390
1894.....	10,280	6,714	7,112	7,750	6,621	.....	.....	38,477
1895.....	9,644	7,184	6,607	8,005	7,190	.....	.....	38,630
1896.....	9,380	7,103	2,134	4,467	5,758	4,374	3,816	37,032
1897.....	7,632	6,872	1,635	4,021	5,672	4,100	3,856	33,788
1898.....	7,377	6,799	1,800	4,030	6,093	4,662	4,265	35,026

The apparent statement here is that the number of mine workmen has materially fallen off since 1896. The fact is that since that year the number reported is the average for the year, while before that it was the practice to take the highest number employed at any time during the year. It is believed that, although the highest number may approximately indicate the whole number of men available for mine work in the State, the average number employed throughout the year is the better number for record for comparisons and for all statistical purposes. Substituting the average for the highest number for three years prior to 1897 we have the following result for five years:

1894	32,635	1897.....	33,788
1895.....	31,962	1898	35,026
1896.....	33,054		

From this the true proportions of the relative working force for these years are made apparent, and the fact of a normal increase instead of a decrease is established.

PRICES PAID FOR MINING.

Among the more important results of the recent strike was the agreement by the parties in controversy upon a uniform tonnage basis of wages, for both machine and other mines, and upon the gross ton instead of the screened ton as the unit of computation. This very much facilitates the making of a scale of uniform application, and equally simplifies the statistics of the subject. The result is that a single table is now made to cover the facts in regard to the whole output more satisfactorily than many tables have done heretofore.

TABLE XXVI.—*Average Prices Paid for Mining by Hand and With Machines, by Districts.*

DISTRICT.	MINING BY HAND.				MINING WITH MACHINES.	
	GROSS-TON BASIS.		SCREENED-TON BASIS.		Tons on which average is based.	Average price per ton.
	Tons on which average is based.	Average price per ton.	Tons on which average is based.	Average price per ton.		
First.....	2,144,240	\$0 60.3	.....	.....	6,022*	\$0 37
Second.....	2,122,576	58.5	340,590	\$0 75.2	87,944	27
Third.....	493,084	45	218,350	83.4	10,412	31
Fourth.....	2,016,457	43.67	.....	.....	555,602	27.22
Fifth.....	2,871,012	38.7	.....	.....	1,045,678†	31.95
Sixth.....	2,334,341	40.4	.....	.....	1,018,091‡	33.6
Seventh.....	2,576,923	34.4	.....	.....	582,377	30.41
The State.....	14,558,633	\$0 44.09	558,940	\$0 78.4	3,306,126	\$0 31.37

* Mining of 59,100 tons in this district paid for by the day.

† Mining of 9,000 tons in this district paid for by the day.

‡ Mining of 107,500 tons in this district paid for by the day.

The general statement embodied in this table is that out of a gross output of 18,599,299 tons, 14,558,633 tons, or 78.27 per cent was paid for on the gross-ton basis at an average for the State of 44.09 cents per ton; 558,940 tons, or 3 per cent was paid for on the screened-ton basis at an average rate of 78.4 cents per ton; 3,306,126 tons, or 17.78 per cent was mined by machines and paid for at the average rate of 31.37 cents per ton, and that 175,600 tons, or 0.95 of 1 per cent of the machine work was paid for by the day. The smallness of the percentages paid for by the screened ton and by the day is substantial evidence of the universality with which the terms of the agreement have been put into effect. Only 3 per cent of the total output was paid for on the old basis of the screened ton, and this occurred only among the local mines in rural districts, whose practice has no influence whatever on the industry at large. Some of the machine tonnage reported here as paid for by the day comes from mines where a few machines were operated experimentally, but in the case reported in the Sixth district the practice of paying by the day has now been abandoned and the scale rate and method adopted.

This radical change in the principle and practice governing the payment of wages effectually destroys the parallel which has heretofore existed between the statistics of one year with another in these

reports. Last year about six million tons of the output were paid for by the gross ton, six millions by the screened ton, and the remaining eight millions by so many devious and different methods that it was impossible to tabulate them, thus leaving more than a third of the output unrepresented in the State average. This year 96 per cent of the entire output is accounted for under definite heads in the foregoing table, and of all the hand-mined coal, 97 per cent is paid for on the uniform basis of the gross ton. To compare State averages, computed under such conflicting conditions, can not be conclusive as to the percentage of increase in the price of all mining. As to gross-ton mining alone, the average rate for less than one-third of the output was for last year 34.26 cents per ton; this year the average for practically the whole of it is 44.09 cents per ton. This is obviously a defective comparison, and none whatever can be drawn between the last year's prices for screened coal and this year's prices for unscreened coal. Statistics of the strike, gathered and published in the last report of this office, showed the advance in prices gained by the miners in all parts of the State and an average for the State at large of 26.42 per cent.

Next in importance to the rate of wages, in the estimation of the miner, is the frequency with which wages are paid. The statistics of this subject for the several districts and the State are compiled herewith:

TABLE XXVII—*Frequency of Wage Payments, by Districts.*

DISTRICT.	WAGES PAID WEEKLY.			WAGES PAID SEMI-MONTHLY.			WAGES PAID MONTHLY.		
	Mines.	Men.	Tons.	Mines.	Men.	Tons.	Mines.	Men.	Tons.
First.	44	295	142,840	41	7,080	2,066,222	1	2	300
Second.	71	324	111,876	96	5,766	2,054,243	17	709	384,991
Third.	58	178	29,807	152	1,573	681,253	7	49	10,786
Fourth.	45	819	536,237	46	3,183	2,025,554	3	28	10,268
Fifth.	7	26	8,681	71	6,050	3,912,116	1	17	4,893
Sixth.	18	79	26,924	76	4,132	3,053,413	4	451	379,595
Seventh.	41	158	72,655	67	3,825	2,904,210	15	282	182,432
The State...	294	1,879	929,023	549	31,609	16,697,011	48	1,538	973,265

Over thirty-one thousand of the miners employed in the State are paid their wages twice a month, and this preponderance is so great

as to establish the rule as general, the number who are paid by the month being more than offset by the number who get their pay every week. The percentages of the foregoing table read as follows:

TABLE XXVIII.—*Percentages of all Mines, Men and Tons Affected by Specified Intervals of Wage Payments by Districts.*

DISTRICT.	WAGES PAID WEEKLY.			WAGES PAID SEMI-MONTHLY.			WAGES PAID MONTHLY.		
	Mines.	Men.	Tons.	Mines.	Men.	Tons.	Mines.	Men.	Tons.
First.....	51.16	4.00	6.47	47.68	95.97	93.52	1.16	0.03	0.01
Second.....	38.58	4.76	4.38	52.18	84.80	80.53	9.24	10.44	15.09
Third.....	26.73	9.89	4.14	70.05	87.39	94.37	3.22	2.72	1.49
Fourth.....	47.87	20.32	20.85	48.94	79	78.76	3.19	0.68	0.39
Fifth.....	8.86	0.43	0.22	89.87	99.29	99.65	1.27	0.28	0.13
Sixth.....	18.37	1.69	0.78	77.55	88.63	88.25	4.08	9.68	10.97
Seventh.....	33.33	3.70	2.30	54.46	89.68	91.92	12.21	6.62	5.78
The State...	32.23	5.36	4.99	62.32	90.25	89.78	5.45	4.39	5.23

In brief, 90 per cent of all mine workmen receive their pay semi-monthly, 5 per cent are paid monthly, and 5 per cent weekly. The semi-monthly payment of wages has been long contended for by miners, and is now for the first time substantially accomplished. The gradual growth of this practice in the mines of Illinois is exhibited in the following table of percentages for a series of years:

TABLE XXIX.—*Percentages of Mines, Men and Tons Affected by Specified Intervals of Wage Payment for a Series of Years.*

YEAR.	WAGES PAID WEEKLY.			WAGES PAID SEMI-MONTHLY.			WAGES PAID MONTHLY.		
	Mines.	Men.	Tons.	Mines.	Men.	Tons.	Mines.	Men.	Tons.
1893.....	67	27.6	26.2	25	56	50.4	8	16.4	23.4
1894.....	43	11.7	9.7	46	66.6	67.2	11	21.7	23.1
1895.....	31	6.5	4.2	57	78.3	74.4	12	15.2	21.4
1896.....	49	7.8	5.3	37.5	74.6	73.5	12	17.6	21.2
1897.....	46.78	6.91	4.34	39.04	74.69	73.71	14.18	18.4	21.9
1898.....	32.23	5.36	4.99	62.32	90.25	89.78	5.45	4.39	5.23

Six years ago about half the men were paid semi-monthly; more paid weekly, and less than a quarter, monthly. There has been towards a reduction of both the

the smaller classes and a corresponding increase in the number paid twice a month. For the three years 1895-7, inclusive, there was little change, about three-fourths of the men being under semi-monthly pay and twice as many under monthly as under weekly pay. But here again the impress of the recent strike is discerned, and for the year 1898 the percentage is raised from 75 to 90. It is observed that the percentage of men paid every week has diminished during these years as well as that of those paid monthly. This is explained by the fact that it was at first attempted to establish weekly payments by law, and this was so far successful that in 1893, 27.6 per cent of employes received pay each week. Subsequently the semi-monthly pay was agreed upon by employers and men as a compromise between the weekly and monthly intervals, and, as a consequence, the shorter interval was in some cases lengthened, and the longer was shortened to the common semi-monthly period.

MACHINE MINING.

Inquiries relating to the extent to which machines have been used in mines during the year have resulted in the accumulation of the following facts for the several districts and the State:

TABLE XXX.—*Number and Tonnage of Mining Machines, by Districts.*

DISTRICT.	MINES IN WHICH MACHINES ARE USED.								
	EXCLUSIVELY.			IN PART.			TOTAL.		
	Mines.	Ma- chines.	Tons.	Mines.	Ma- chines.	Tons.	Mines.	Ma- chines.	Tons.
First.....				2	17	65,122	2	17	65,122
Second.....	1	6	77,119	1	2	10,825	2	9	87,944
Third.....				1	2	10,412	1	2	10,412
Fourth.....	1	4	68,094	6	52	487,508	7	56	555,602
Fifth.....	11	101	846,992	4	32	207,686	15	133	1,054,678
Sixth.....	16	113	921,900	2	10	137,500	18	123	1,059,400
Seventh.....	5	22	226,232	5	31	356,245	10	53	582,477
The State.....	34	246	2,140,337	21	146	1,275,258	55	392	3,415,635

There are no mines operated exclusively by machines in the First or Third districts, and only one each in the Second and Fourth districts, but in the three southern districts there are 32 mines

operating 236 machines, which have mined 1,995,124 tons, wholly by machines. Twenty-one mines in all districts using machines for part of their output are employing 146 machines with a result of 1,275,298 tons. In all, 392 machines in 55 mines have undercut 3,415,635 tons. Compared with the year preceding, these figures show an increase of twelve in the number of mines in which machines are installed and an increase of seventy-two in the number of active machines. This, however, does not result in any increase in the machine output, which is, in fact, less than usual in the same proportion as the total output is less. But the fact should be noted that the general strike was of greatest duration at the principal machine mines, and the shortage would doubtless have been greater than it is if there had been no increase in the machine plants.

It is also true that in many cases the new machines have been so recently installed that their output could not materially affect the total tonnage. At the close of the current year results may fairly be expected which will indicate a decided revival of interest in mechanical mining.

TABLE XXXI.—*Kinds of Machines and the Number of Each in Use, by Districts.*

DISTRICT.	Harrison.	Ing-Serg't	Yock....	Gen. Elec- tric.....	Link Belt	Jeffrey...	Morgan - Gardner.	Sullivan.	Chouteau	Total.....
First.....		9			8					17
Second.....				7		1				8
Third.....								2		2
Fourth.....	20	7	2			17	2	8		56
Fifth.....	90	27	3		8		4	1		133
Sixth.....	55	52	6		4	1			5	123
Seventh.....	23	12	5			8		5		53
The State.....	188	107	16	7	20	27	6	16	5	392

The foregoing is a classification showing the number of each of the various types of machines in use, by districts. The Harrison machines outnumber all others, as they have for many years; there is, however, no increase in their number over that reported for the preceding year. The Ingersoll-Sergeant machines have increased from 88 to 107 in number, and the Sullivan from 4 to 16. These, with the Yock and Chouteau, are pick machines, operated by compressed air.

More noticeable, perhaps, is the interest which has been developed in the Link-Belt and Jeffrey machines, both of which are of the chain-cutting type and both impelled by electricity. The number of these machines in use has increased five-fold during the year, and their reported efficiency gives promise of much future usefulness.

Following is a list of the mines in which machines are used exclusively, showing the number and kind of machines used and the number of tons undercut. This is followed by a corresponding list of the mines in which a part only of the output is mined by machines.

Mines in which Machines are Used Exclusively.

Company.	Location.	Machines.	Tons.
Newsam Brothers.....	Kingston.....	{ 5 General Electric.... 1 Jeffrey.....	77,119
Himrod Coal Co.....	Westville.....	4 Sullivan.....	68,094
Thomas Pressed Brick Co.....	Golden Eagle.....	1 Ingersoll-Sergeant..	4,893
Taylorville Coal Co.....	Taylorville.....	14 Harrison.....	180,000
Consolidated Coal Co. No. 7.....	Staunton.....	10 ".....	77,873
" " No. 8.....	Mt. Olive.....	17 ".....	143,772
" " No. 10.....	".....	14 ".....	116,579
" "	Gillespie.....	10 ".....	50,244
" "	Hornsby.....	7 ".....	32,797
Girard Coal Co.....	Girard.....	9 Ingersoll-Sergeant..	88,971
Madison Coal Co. No. 5.....	Mt. Olive.....	16 ".....	139,817
William Neil & Co.....	Bunker Hill.....	1 Harrison.....	6,046
Raymond Mining Co.....	Raymond.....	{ 1 Sullivan..... 1 Ingersoll-Sergeant..	4,000
Sorento Prop. & Mining Co.....	Sorento.....	7 ".....	82,841
Consolidated Coal Co.....	Trenton.....	12 Harrison.....	92,754
" " Abbey, No. 3.....	Collinsville.....	10 ".....	92,379
" " Heintz Bluff.....	".....	8 ".....	66,327
" "	Troy.....	5 ".....	17,410
Madison Coal Co. No. 2.....	Glen Carbon.....	15 Ingersoll-Sergeant..	130,284
" " No. 3.....	Edwardsville.....	8 ".....	28,908
" " No. 4.....	Glen Carbon.....	12 ".....	86,216
Con. Coal Co., Richland.....	Belleville.....	3 Harrison.....	8,481
" " Schureman.....	".....	{ 1 Ingersoll-Sergeant.. 4 Harrison.....	41,372
" " Gartside No. 4.....	".....	5 ".....	38,541
" " Green Mount.....	".....	5 ".....	47,368
" " Rose Hill.....	".....	3 ".....	26,145
Oakland Coal Co.....	".....	4 Ingersoll-Sergeant..	51,387
Glendale Coal Co.....	".....	5 Chouteau.....	74,058

Mines in which Machines are Used Exclusively—Concluded.

Company.	Location.	Machines.	Tons.
Lebanon Coal Mining Ass'n.....	Lebanon.....	6 Yock.....	37,449
Gartside Coal Co. No. 1.....	Murphysboro.....	3 Ingersoll-Sergeant..	35,615
" " No. 3.....	"	5 Yock.....	69,043
" " No. 4.....	"	5 Ingersoll-Sergeant..	88,857
Big Muddy Coal & Iron Co. No. 6...	"	4 Harrison.....	14,217
Ohio & Miss. V'y C. & M. Co. No. 2.	Marion.....	5 Jeffrey.....	18,500
Total—34 mines.....		246 machines.	2,140,337

Mines in Which Only Part of the Output is Cut by Machines.

Company.	Location.	Machines.	Tons.
Gardner & Wilmington Coal Co.....	Gardner	9 Ingersoll-Sergeant	6,022
Chicago, Wilm. & Verm. Coal Co. No. 2....	Streator	8 Link-Belt.....	59,100
Reed City Coal Co.....	Reed City.....	2 General Electric..	10,825
Whitebreast Fuel Co., Mine C.....	Dunfermline...	2 Sullivan.....	10,412
Athens Mining Co	Athens.....	7 Ingersoll-Sergeant	53,263
Kelleyville Coal Co. No. 2.....	Westville.....	2 Jeffrey.....	43,234
Pawnee Coal Co.....	"	{ 4 Sullivan..... 9 Harrison..... 2 Yock..... }	107,512
Westville Coal Co.....	"	10 Jeffrey.....	135,124
J. W. Ellsworth & Co.....	Glenburn	11 Harrison.....	7,000
Kellyville Coal Co. No. 3.....	Westville.....	{ 5 Jeffrey..... 2 Morgan-Gardner.. }	141,375
Consolidated Coal Co. No. 6.....	Staunton.....	{ 3 Yock..... 13 Harrison..... }	138,791
Chicago-Virden Coal Co. No. 1.....	Virden.....	8 Link-Belt.....	25,446
Hillsboro Coal Co.....	Hillsboro.....	4 Morgan-Gardner..	9,000
Moweaqua Coal Co.....	Moweaqua.....	4 Harrison.....	34,449
Odin Coal Co.....	Odin.....	{ 4 Link-Belt..... 1 Jeffrey..... }	107,500
Trenton Coal, Light & Power Co.....	Trenton.....	5 Ingersoll-Sergeant	30,000
Big Muddy Coal & Iron Co. No. 5.....	Murphysboro...	11 Harrison.....	189,396
Big Muddy Coal & Iron Co., Harrison.....	"	8 Harrison.....	93,849
Willis Coal & Mining Co.....	Willisville.....	4 Ingersoll-Sergeant	55,000
Ohio Valley Coal & Coke Co.....	Marion.....	5 Sullivan.....	8,000
Big Iron Co. No. 7	Murphysboro...	3 Jeffrey.....	10,000
		146 machines.....	1,275,296

The latter list, embracing 21 mines, is found to be more than twice as large as the corresponding list of last year, and to contain more than twice as many machines. This list, in effect, represents the new territory occupied by the machine men, as there has been only one added to the list of the exclusively machine mines during the year.

CONSUMPTION OF POWDER.

The customary statistics relating to the use of blasting powder in mining have again been gathered and are summarized for the year in the table herewith:

TABLE XXXII—*Distribution of Powder to Long-wall and Pillar-and-room Mines, by Districts.*

DISTRICT.	Tons produced without powder.	LONG-WALL MINES.		PILLAR-AND-ROOM MINES.		ALL MINES.	
		Kegs	Tons	Kegs	Tons	Kegs	Tons
First.....	725,733	597	694,106	27,246	789,523	27,843	2,209,362
Second.....	956,350	253	534,791	42,952	1,059,961	43,205	2,551,110
Third.....	143,086			21,601	578,760	21,601	721,846
Fourth.....	445,554	25	130,450	59,640	1,996,055	59,665	2,572,059
Fifth.....	19,142	100	62,400	86,144	3,844,148	86,244	3,925,690
Sixth.....	7,570			71,757	3,452,362	71,757	3,459,932
Seventh.....	60			69,671	3,159,240	69,671	3,159,300
The State.....	2,297,495	975	1,421,747	379,011	14,880,057	379,986	18,599,299

All the tonnage of the State is here accounted for by way of establishing what portions of it are mined with and without explosives. Two and a quarter million tons are reduced without any powder. These are produced in the long-wall mines where the weight of the roof brings down the coal after it is mined, and in many local mines where the coal is undercut and forced down with wedges. Nearly a million and a half tons are reported, for which the quantity of powder used was very small. These are from those long-wall mines in which powder is used for miscellaneous other purposes than for dislodging the coal at the face. This leaves the tonnage which is the direct result of the use of explosives in the mining process, which is all from the so-called pillar-and-room mines. In all, 975 kegs of powder were used for miscellaneous purposes during the year, and

379,011 kegs for the purpose of blasting the coal itself. The amount of coal reduced through this agency was 14,880,057 tons, or 80 per cent of the entire output.

Two systems of mining, or of securing the coal, prevail in pillar-and-room mines, by one of which the mineral is undercut before blasting, and by the other the coal is blasted from the solid wall without undercutting. The latter process naturally requires the more powder; and, as the miner has to pay for whatever powder he uses, involves greater expense to the individual workman. The average amount of powder used by the miner in these two kinds of mines, and the average number of tons of coal acquired for each keg of powder consumed in the two methods of mining, are set forth in the three tables following:

TABLE XXXIII—*Powder Used in Mines Where the Coal is Undercut Before Blasting.*

District.	Kegs consumed.	Miners employed.	Tons produced.	Kegs per man.	Tons per keg.
First.....	9,255	651	280,534	14.22	30.31
Second.....	951	189	111,929	5.05	117.48
Third.....					
Fourth.....	3,323	235	233,993	14.14	70.11
Fifth.....	7,903	1,509	1,274,413	5.23	161.25
Sixth.....	12,091	1,115	1,127,640	10.84	93.26
Seventh.....	7,972	617	700,674	12.92	87.89
The State.....	41,495	4,316	3,729,183	9.61	89.87

TABLE XXXIV—*Powder Used in Mines Where the Coal is Blasted Without Undercutting.*

District.	Kegs consumed.	Miners employed.	Tons produced.	Kegs per man.	Tons per keg.
First.....	17,991	961	508,989	18.72	28.29
Second.....	39,960	1,326	888,039	30.14	22.22
Third.....	21,601	894	578,760	24.16	26.79
Fourth.....	37,991	1,281	978,722	29.66	25.76
Fifth.....	76,521	2,536	2,452,498	30.17	32.05
Sixth.....	59,666	2,298	2,324,722	25.97	38.96
Seventh.....	61,699	2,338	2,458,566	26.43	39.85
The State.....	315,429	11,634	10,190,296	27.11	32.31

TABLE XXXV—Powder Used in Mines Where Coal is Both Blasted from the Solid and Undercut Before Blasting.

District.	Kegs consumed.	Miners employed.	Tons produced.	Kegs per man.	Tons per keg.
Second.....	2,041	95	60,001	21.48	29.39
Fourth.....	18,326	868	783,340	21.11	42.74
Fifth.....	1,720	160	117,237	10.75	68.16
Total.....	22,087	1,123	960,578	19.67	43.49

A condensed statement of the foregoing statistics of powder and tonnage is, that in all, 14,880,057 tons were wrought by the use of 379,011 kegs of powder. Of these, 3,729,183 tons were mined before blasting, and required 41,495 kegs of powder; 10,190,296 tons were blasted from the solid face, requiring 315,429 kegs, and 960,578 tons, requiring 22,087 kegs, were produced in mines where both practices are in vogue. In the first class an average of 89.87 tons were obtained from each keg of powder; in the second, an average of 32.31 tons per keg, and in the last, an average of 43.49 tons per keg.

The relative cost of powder to the miners working under these two systems is indicated by the average number of kegs used per man as computed in the foregoing tables. The number of men mining and blasting was 4,316, and their expenditure of powder was equal to 9.61 kegs per man per year; the number blasting from the solid was 11,634, and they burned, on the average, 27.11 kegs each per year. These averages vary somewhat, though not materially, from year to year, and this year are somewhat less than usual. It should be said, however, that while the cost of powder to the miner is greater per ton of product in the solid blasting method, the manual labor involved in that process is considerably less per ton than it is when the coal is undermined with the pick. That the saving of labor in the one case is regarded as quite equivalent to the saving of powder in the other, is observed by the fact that it is not often that a miner will undercut his coal for what he can save in powder by doing so.

FATAL ACCIDENTS IN MINES.

The number of deaths which have occurred during the year as results of accidents in and about the mines of the State is 75, which is *six more than the number of lives lost last year and about the same*

as the average number for the three years preceding that. The distribution of these casualties among districts, and their relation to the number of men employed and the number of tons delivered, is found in the following table:

TABLE XXXVI.—*Fatal Casualties, by Districts, 1898.*

District.	Number killed.	Number of employes.	Number of tons of coal mined.	Number of employes to each death.	Number of tons of coal mined to each death.
First.....	12	7,377	2,209,362	615	184,114
Second.....	10	6,799	2,551,110	680	255,110
Third.....	4	1,800	721,846	450	180,462
Fourth.....	19	4,030	2,572,059	212	135,372
Fifth.....	5	6,093	3,925,690	1,219	785,138
Sixth.....	8	4,662	3,459,932	583½	432,492
Seventh.....	17	4,265	3,159,300	251	185,841
The State.....	75	35,026	18,599,299	467	247,991

It will be observed that there is no correspondence between the number of deaths and the number of employes, and none between deaths and tons of product, in the several districts. Large numbers and large tonnage are found alike in conjunction with a high and a low death rate. In fact, the district is too small a unit, and affords too narrow a basis for the formulation of any general ratios between the casualties in districts and the numbers exposed to them. Moreover, these deaths are each the result of an accident, usually of a moment's inadvertance on the part of the victim, and consequently are among the mere chances of life which follow no rule and are governed by no law. The conditions under which all miners work are hazardous. The law contemplates, and the inspector enforces, the removal of those dangers which are preventable, but there are those which neither the law nor the inspector can reach.

TABLE XXXVII—*Fatal Accidents for 16 Years.*

Year.	Number killed.	Total number of employes.	Total number of tons of coal mined.	Number of employes to each life lost.	Number of tons of coal produced to each life lost.
1883	*134	23,939	12,123,456	179.6	90,474
1884	46	25,575	12,208,075	566	265,393
1885	39	25,446	11,634,459	652.4	303,448
1886	52	25,846	11,175,241	497	214,909
1887	41	26,804	12,423,066	654	303,002
1888	55	29,410	14,328,181	534.7	260,512
1889	42	30,076	14,017,298	716.1	333,745
1890	53	28,574	15,274,727	539.1	286,316
1891	60	32,951	15,660,698	549	261,012
1892	57	33,632	17,062,276	580	313,372
1893	69	35,390	19,949,564	513	289,124
1894	72	32,635	17,113,576	453.3	237,688
1895	75	31,962	17,735,864	426.2	236,478
1896	77	33,054	19,786,626	429.2	256,989
1897	69	33,788	20,072,758	489.7	290,910
1898	75	35,026	18,599,299	467	247,991
Average 16 years	63.5	30,257	15,585,328	476.5	245,438

* 69 men drowned by the flooding of the Diamond mine, Braidwood, and 10 men killed by an explosion at Coulterville.

The above is the casualty record of the State for a series of sixteen years. Omitting the exceptional year, 1883, it is found that the number of deaths per annum has increased during this period from 46 to 75, or 63 per cent; the number of employes has increased from 25,575 to 35,026, or 37 per cent, while the output has increased from 12,208,075 tons to 18,599,299 tons, or 52 per cent. It thus appears that in the State at large as well as in districts, and for a term of years, as well as for the year, there is no fixed or common relation which the accidental deaths in mining sustain, either to the whole number employed or to the tons of product. Throughout the interval these deaths increase or decrease from year to year regardless alike of the number of men or of tons with which they are associated. It can not, therefore, be regarded as a matter of especial significance that the fatalities for this year are rather more in number than those of the year preceding. As a matter of conjecture, it *might have been expected* that the number would have been less this year than usual, because operations were suspended altogether in

many mines for a number of months. On the other hand, the actual days of activity for the year, as a whole, were reduced only from 185.5 to 174.7, and it is true that the longer a mine stands idle the greater the danger to life and limb when men return to work. The influence of the strike, therefore, if observable at all, would be to increase, rather than diminish, dangers and deaths.

Following is an analysis of the deaths of the year by the causes which occasioned them:

TABLE XXXVIII—*Fatal Accidents, by Causes, 1898, with Totals and Averages for Nine Years.*

CAUSE.	Totals.	DISTRICT.							Percentages.
		First.	Second.	Third.	Fourth.	Fifth.	Sixth.	Seventh.	
Cages.....	1	1							1.35
Explosion of boiler.....	1							1	1.35
Explosion of powder.....	3	1	1					1	4.05
Falling coal and rock.....	43	8	5	1	15	3	4	7	58.1
Falling down shaft.....	4		1		1		2		5.4
Falling from cage.....	1	1							1.35
Falling from trestle.....	1				1				1.35
Fan on surface.....	1		1						1.35
Flying coal.....	2			1			1		2.7
Gas and fire-damp.....	7	1		1				5	9.45
Heart disease.....	2						1	1	2.7
Pit-cars.....	2		1	1					2.7
Premature blasts.....	5		1		2	1		1	5.68
Railroad cars.....	1					1			1.35
Unknown.....	1							1	1.35
Totals, 1898.....	75	12	10	4	19	5	8	17	100.00
" 1897.....	69	11	9	4	10	19	11	5	
" 1896.....	77	18	11	4	14	16	4	10	
" 1895.....	75	16	12	16	15	16			
" 1894.....	72	19	9	10	19	15			
" 1893.....	69	17	5	12	10	25			
" 1892.....	57	10	1	11	24	11			
" 1891.....	60	15	4	9	12	20			
" 1890.....	53	16	5	10	11	11			
<i>Averages</i>	607	134	66	80	134	138	23	32	
	67.4	14.9	7.3	8.9	14.9	15.3	7.7	10.7	

The foregoing statement distributes the deaths by the nature of the accidents which led to them, and chiefly shows the great preponderance of deaths which come from the falling of rock and coal upon the working miner. This is the peril from which he can never escape, and against which he is always watchfully, but not always successfully, on guard. Another feature of the table is the distribution, by districts, of the fatal casualties of nine successive years.

TABLE XXXIX—*Fatal Accidents for Eleven Years by Leading Causes.*

Cause.	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	Totals.	Percent- ages for 11 years.
Blasts, explosions, etc.....	9	3	4	11	4	6	8	12	9	11	11	88	12.5
Cages.....	2	4	4	4	4	4	8	4	5	...	2	41	5.82
Coal and other things falling down shaft.....	...	1	...	2	1	...	...	1	...	...	...	5	0.7
Falling down shaft.....	4	2	...	1	8	3	5	4	6	5	4	42	6
Falling coal and rock, etc.....	33	26	36	33	28	48	43	38	41	46	43	415	58.8
Falling props, etc.....	...	1	...	1	3	2	...	1	1	...	1	10	1.42
Fire-damp and gas.....	...	...	5	4	2	3	...	5	2	2	7	30	4.26
Pit-cars.....	6	5	3	2	6	2	6	5	7	1	2	45	6.4
Railroad cars.....	1	...	1	2	1	1	2	1	1	1	1	12	1.7
Other causes.....	...	...	...	...	...	...	...	4	5	3	4	17	2.4
	55	42	53	60	57	69	72	75	77	69	75	704	100.00

This is an analysis of all the deaths for a series of years by the causes which have led to them, and the noteworthy observations are that 58.8 per cent of all the deaths which have occurred about mines in eleven years were occasioned by the fall of mineral upon the miner while at work, and that only 4.26 per cent of deaths was caused by fire-damp or other gases. Although in general our mines are free from dangerous accumulations of gas, there are some localities in which fire-damp affords a constant menace, requiring the utmost caution on the part of mine managers and men. In such a place, in Williamson county, four men were instantly killed and two others seriously injured by an explosion of fire-damp during the year, and, in all, seven deaths caused by gas are here reported. This is a

greater number of deaths from this cause than has occurred in any year since 1883, when ten men were killed by an explosion of fire-damp and dust at Coulterville. Yet, in the eleven years covered by this table, only 30 deaths out of 704 have been occasioned by gases of any kind, while 414 have resulted from falling material.

TABLE XL.—*Percentages of Fatal Accidents Caused by Falling Roof or Sides, for 16 Years, by Districts.*

YEAR	DISTRICT.							THE STATE.	
	First.	Second.	Third.	Fourth.	Fifth.	Sixth.	Seventh.	Total deaths.	Per cent.
1883.....	8.9	100	82.4	62.5	40	.....	.....	134	30
1884.....	27.3	83.3	66.7	44.4	75	.....	.....	46	56.5
1885.....	60	.....	33.3	69.2	43	.....	.....	39	51.3
1886.....	64.3	50	45.5	89	58.3	.....	.....	52	61.5
1887.....	71.4	60	60	66	71.4	.....	.....	41	68.3
1888.....	84.2	20	50	62.5	46.2	.....	.....	55	60
1889.....	57.1	33.3	50	75	72.7	.....	.....	42	62
1890.....	93.8	20	80	45.5	63.6	.....	.....	53	67.9
1891.....	66.7	50	44.4	50	55	.....	.....	60	55
1892.....	80	100	45.5	33.3	54.5	.....	.....	57	49.1
1893.....	88.2	60	66.6	60	64	.....	.....	69	69.6
1894.....	68.4	44.4	50	52.6	66.6	.....	.....	72	58.3
1895.....	50	58.3	43.75	46.67	56.3	.....	.....	75	50.7
1896.....	77.8	36.4	75	57.1	18.8	100	50	77	53.3
1897.....	72.7	44.4	75	100	57.9	72.7	40	69	66.7
1898.....	66.7	50	25	79	60	50	41.2	75	58.1
16 years.	54.6	48.4	56	60	55.6	69.6	43.8	1,016	55.5

Here is the record for sixteen years of the percentages of all deaths which have befallen miners in this State from falling rock or coal in each of the several districts. These percentages fluctuate variously, both for years and districts, with the common resultant of 55.5 per cent of all deaths occasioned by falls.

The occupation and conjugal relation of all the killed are shown in the following table:

TABLE XLI.—*Occupation and Conjugal Relation of Killed.*

OCCUPATION.	DISTRICTS AND NUMBER OF FATAL CASUALTIES IN EACH.							Total number of killed.	CONJUGAL RELATION.				Total number of dependents.
	First.	Second.	Third.	Fourth.	Fifth.	Sixth.	Seventh.		Married.	Single.	Widows.	Children.	
Drivers	1			1	1	1	1	5	3	2	3	3	6
Engineers						1	1	2	1	1	1	1	2
Laborers		1			2			3		3			
Loaders						4		4	4		4	12	16
Machine helpers				2	1	1		4	1	3	1		1
Miners	9	7	4	12	1	1	14	48	27	21	27	69	90
Picker	1							1	1		1	9	5
Pump man		1						1	1		1	2	3
Road man	1							1	1		1		1
Timbermen				2			1	3	2	1	2	6	6
Topmen				2				2	2		2	10	9
Trip rider		1						1	1		1	3	4
Totals	12	10	4	19	5	8	17	75	44	31	44	115	143

More than half the killed are naturally found to have been miners proper, as distinguished from other mine workers, as it is the miner who is chiefly exposed to the falling roof and the perils of the blasting process, through which two agencies 71.3 per cent of all deaths are brought about.

Of the killed, 31 are found to have been unmarried, and 44 were married men; the latter left 44 widows and 115 children. Some of these were self-supporting, but some of the single men also had dependent relatives, and the whole number dependent upon all the deceased was 143. Last year, although the number of killed was somewhat less, those dependent upon them numbered 177.

This subject is closed with the following table, covering the essential details for each district for all the years in which statistics have been gathered:

TABLE XLII—Fatal Accidents from Falls in Mines and from Other Causes, with Averages and Percentages for 16 Years.

YEAR.	DISTRICT.														Total from falls in mines.		Total from other causes.		Total deaths.
	First.		Second		Third.		Fourth.		Fifth.		Sixth.		Seventh.						
	Falls.	Other causes.	Falls.	Other causes.	Falls.	Other causes.	Falls.	Other causes.	Falls.	Other causes.	Falls.	Other causes.	Falls.	Other causes.					
1883.....	7	72	1	....	13	5	11	5	8	12	....	....	....	....	40	94	134
1884.....	6	5	5	1	8	4	4	5	6	2	....	....	....	....	29	17	46
1885.....	6	4	....	3	2	4	9	4	3	4	....	....	....	....	20	19	39
1886.....	9	5	3	3	5	6	8	1	7	5	....	....	....	....	32	20	52
1887.....	10	4	3	2	3	2	2	1	10	4	....	....	....	....	28	13	41
1888.....	16	3	1	4	5	5	5	3	6	7	....	....	....	....	33	22	55
1889.....	8	6	1	2	3	3	6	2	8	3	....	....	....	....	26	16	42
1890.....	15	1	1	4	8	2	5	6	7	4	....	....	....	....	36	17	53
1891.....	10	5	2	2	4	5	6	6	11	9	....	....	....	....	33	27	60
1892.....	8	2	1	....	5	6	8	16	6	5	....	....	....	....	28	29	57
1893.....	15	2	3	2	8	4	6	4	16	9	....	....	....	....	48	21	69
1894.....	13	6	5	4	5	5	10	9	10	5	....	....	....	....	43	29	72
1895.....	8	8	7	5	7	9	7	8	9	7	....	....	....	....	38	37	75
1896.....	14	4	4	7	3	1	8	6	3	13	4	....	5	5	41	36	77	
1897.....	8	3	4	5	3	1	10	....	11	8	8	3	2	3	46	23	69	
1898.....	8	4	5	5	1	3	15	4	3	2	4	4	7	10	43	32	75		
16 years....	161	134	46	49	83	65	120	80	124	99	16	7	14	18	564	452	1,016		
Averages.....	10	8.4	2.9	3	5.2	4	7.5	5	7.7	6.3	5.3	2.3	4.6	6	35.2	28.3	63.5		
Percentages ..	54.6	45.4	48.4	51.6	56	44	60	40	55.6	44.4	69.6	30.4	43.8	56.2	55.5	44.5			

NON-FATAL ACCIDENTS.

The inspectors are required to gather, not only statistics of the accidental deaths about mines, but also the facts in regard to injuries received which were less than fatal. Injuries which have caused less than a week's loss of time are not considered. The following table for injuries shows the number of injured in each district, likewise the ^{they} sustain numerically to all employés and all to

TABLE XLIII—*Non-Fatal Accidents, by Districts, 1898.*

District.	Number of men injured.	Number of employés.	Number of tons of coal mined.	Number of employés to one man injured.	Number of tons mined to one man injured.
First.....	103	7,377	2,209,362	72	21,450
Second.....	60	6,799	2,551,110	113	42,519
Third.....	12	1,800	721,846	150	60,154
Fourth.....	92	4,030	2,572,059	44	27,597
Fifth.....	48	6,093	3,925,690	127	81,785
Sixth.....	75	4,662	3,459,932	62	46,132
Seventh.....	48	4,265	3,159,300	89	65,819
The State.....	438	35,026	18,599,299	80	42,464

The whole number of injured, as reported above, is 438, which is less than the number reported for any one of the four years preceding. The facts for non-fatal accidents for all years are as follows:

TABLE XLIV—*Non-Fatal Accidents for Sixteen Years.*

Year.	Number of men injured.	Total number of employés.	Total number of tons of coal mined.	Number of employés to one man injured.	Number of tons of coal produced to one man injured.
1883.....	231	23,939	12,123,456	104	52,482
1884.....	197	25,575	12,208,075	130	61,970
1885.....	176	25,446	11,834,459	145	67,241
1886.....	171	25,846	11,175,241	151	66,126
1887.....	180	26,804	12,423,066	149	69,017
1888.....	179	29,410	14,328,181	164	80,046
1889.....	201	30,076	14,017,298	150	69,738
1890.....	294	28,574	15,274,727	97	51,955
1891.....	367	32,951	15,680,698	90	42,672
1892.....	370	33,632	17,062,276	91	46,114
1893.....	403	35,390	19,949,564	88	49,503
1894.....	521	32,635	17,113,576	63	32,848
1895.....	605	31,962	17,735,864	53	29,313
1896.....	672	33,054	19,786,626	49	29,444
1897.....	518	33,788	20,072,758	65	38,751
1898.....	438	35,026	18,599,299	80	42,464
Averages, 16 years ...	345	30,256	15,585,323	88	45,150

The statistics of the injured can not be collected with as much certainty or accuracy as those for the killed for the reason that loss

of life is always made a matter of official notice, while the record of minor injuries is often imperfect and sometimes neglected altogether. The inspector can not do otherwise than accept hearsay evidence in a great many cases, and as a consequence it is quite possible that the record is in some measure incomplete every year and in every district. But this has always been true and probably more so in former years than in more recent ones.

Computed in percentages, it is found that the persons reported injured for this year are equal to 1.25 per cent of all the employes of the year, while the average number of injured per annum for sixteen years is equal to 1.14 per cent of the average number annually employed. Thus, by embracing a term of years in the comparison some wide numerical differences are neutralized, and the accidental injuries for the year assume what may be considered normal proportions.

An analysis of the injured by occupation gives the following results:

TABLE XLV—*Non-Fatal Accidents by Occupation and Districts, with Totals and Percentages.*

OCCUPATION.	DISTRICT.							Totals	Per- cent- ages
	First	Second	Third	Fourth	Fifth	Sixth	Sev- enth		
Blasters						2		2	0.48
Cagers	3	2	1	1	1	2	3	13	3.14
Drivers	11	7	1	10	8	23	8	68	16.43
Engineers	1				1			2	0.48
Foremen	1					1		2	0.48
Gripper					1			1	0.24
Laborers				1	3	6		10	2.42
Loaders				5	3	10	9	27	6.53
Machine men				2	1	1	2	6	1.45
Machine runners	2			1	1	2	2	8	1.93
Mine managers		1		1	1			3	0.72
Miners	80	49	8	42	22	27	20	248	59.9
Operators			1					1	0.24
Pickers	1				1			2	0.48
Pushers			1					1	0.24
Roadr				2		1	2	5	1.93

Table XLV—Concluded.

OCCUPATION.	DISTRICT.							Totals	Per- cent- ages
	First	Second	Third	Fourth	Fifth	Sixth	Sev- enth		
Spraggers				1				1	0.24
Timbermen.....	1				4			5	1.21
Topmen.....	1			1	1			3	0.73
Trappers.....				1			2	3	0.73
Not reported.....				24				24	
	103	60	12	92	48	75	48	438	100.00

Naturally, the miners are those most frequently hurt, as they are especially exposed and are by far the most numerous employes in any mine; next to them are the drivers, and after them the loaders. These three classes contribute 82.86 per cent to the total of injured. Among the hurt in this year's list are three mine managers, a class which, owing to the responsibilities of the position, is quite as much exposed to injury as any about the mine.

TABLE XLVI—*Conjugal Relation of the Injured and the Time Lost from Injuries.*

District.	Total.	Married.	Single.	Children.	Depend- ents.	No. of men re- ported as losing time.	Total days lost.	Average days lost per man.
First.....	103	66	37	199	253	98	3,433	35
Second.....	60	32	28	90	121	57	2,810	49
Third	12	8	4	20	23	12	439	37
Fourth	*92	36	32	101	134	67	2,988	45
Fifth	48	17	31	44	59	39	1,351	35
Sixth.....	75	44	31	77	115	72	2,547	35
Seventh.....	48	31	17	17	90	42	1,031	25
The State	438	234	180	548	795	387	14,599	38

*24 men not reported as to marriage relations, dependents or time lost.

In this table the details of circumstance are not reported for 24 of the men injured in the Fourth district, but for the remainder the conjugal relation and number of dependents are stated. The number of married men injured is somewhat greater than that of the unmarried; among the killed the number of married men was also the *greater, and in about the same ratio, which indicates simply that more of the employes are married.*

In the matter of time lost as a result of injuries sustained, it is often difficult, and sometimes impossible, to arrive at the facts. The more seriously injured are often sent away to hospitals or friends for treatment, and thus are lost sight of; others are frequently shifting their location, and still others have not recovered at the end of the year when the record is made up. For this reason the number for whom the duration of disability is given is always less than the number injured, and this year that number is 387 out of a total of 438. For these the average number of days lost to each, by reason of injuries received, was 38. Last year 459 injured men lost, on an average, 37 days each, and for a series of years preceding that the average ranges from 34 to 44 days.

TABLE XLVII.—*Causes of Non-Fatal Accidents, by Districts.*

CAUSE.	DISTRICT.							The State.	Per-centages
	First.	Second.	Third.	Fourth.	Fifth.	Sixth.	Seventh.		
Cages.....		1	1	1	3	2	1	9	2.17
Coal falling down shaft.....		3				1		4	0.97
Explosion of powder.....					4			4	0.97
Falling coal and rock.....	83	44	7	40	22	30	26	252	60.87
Falling timber.....	3					1	1	5	1.21
Fire damp.....				1	2		2	5	1.21
Flying coal.....		3		1	1	3		8	1.93
Gas explosion.....				2				2	0.48
Pit-cars.....	13	9	2	13	9	26	12	84	20.29
Premature blasts.....				4	3		4	11	2.66
Miscellaneous.....	4		2	6	4	12	2	30	7.24
Not reported.....				24				24	
	103	60	12	92	48	75	48	438	100.00

In the foregoing table of causes the falling of material in mines again appears as the occasion of the greatest number of accidents, and the percentage is even higher than that for the killed. Accidents arising from the handling of pit-cars are next in number and constitute one-fifth of the whole number. This is always a fruitful source of injury, and the percentage here shown is not excessive.

Of the non-fatal injuries caused by falling rock and coal with:

TABLE XLVIII.—*Percentages of Non-Fatal Accidents Caused by Falling Roof and Sides.*

YEAR.	NON-FATAL ACCIDENTS.				YEAR.	NON-FATAL ACCIDENTS.			
	Total.	Falling roof and sides.	All other causes.	Per cent caused by falling roof or sides.		Total.	Falling roof and sides.	All other causes.	Per cent caused by falling roof or sides.
1898.....	438	252	186	60.87	1890.....	294	196	98	66.66
1897.....	518	310	208	59.85	1889.....	201	129	72	64.17
1896.....	672	373	299	55.51	1888.....	179	112	67	62.58
1895.....	605	338	267	55.87	1887.....	180	124	56	68.88
1894.....	521	294	227	56.43	1886.....	171	109	62	63.74
1893.....	403	254	149	63.03	1885.....	176	118	58	67.00
1892.....	370	234	136	63.25	1884.....	197	135	62	68.53
1891.....	367	227	140	61.85	1883.....	231	130	101	56.28

A further combination of both fatal and non-fatal accidents for a series of years affords the following table of percentages of all casualties which have been occasioned by falls:

TABLE XLIX.—*Percentages of all Accidents Occasioned by Falling Roof or Sides During Sixteen Years—1883-1898.*

YEAR.	NUMBER.			PER CENT.		
	Killed.	Injured.	Total.	Killed.	Injured.	Total.
1898.....	75	438	513	58.1	60.87	60.12
1897.....	69	518	587	66.7	59.85	60.65
1896.....	77	672	749	53.3	55.51	55.27
1895.....	75	605	680	50.7	55.87	55.59
1894.....	72	521	593	58.3	56.43	56.82
1893.....	69	403	472	69.6	63.03	63.98
1892.....	57	370	427	49.1	63.25	61.36
1891.....	60	367	427	55.0	61.85	60.88
1890.....	53	294	347	67.9	66.66	66.86
1889.....	42	201	243	61.9	64.17	63.78
1888.....	55	179	234	60.0	62.58	61.97
1887.....	41	180	221	68.3	68.88	68.77
1886.....	52	171	223	61.5	63.74	63.23
1885.....	39	176	215	51.3	67.00	64.18
1884.....	46	197	243	56.5	68.53	66.25
1883.....	134	231	365	30	56.28	47.7
16 years.....	1,016	5,523	6,539	55.5	60.38	59.61

A final showing of the percentages of increase and decrease, both of employes and tons, and of killed and injured, from year to year, since this office was established, is made in the following statement:

TABLE L—*Percentages of Increase and Decrease from Year to Year of Men Employed, Tons Produced, Men Killed and Men Injured.*

YEAR.	MEN EMPLOYED.		TONS PRODUCED		KILLED.		INJURED.	
	Increase	D'crease	Increase	D'crease	Increase	D'crease	Increase	D'crease
1883 to 1884	6.83	.....	0.7	.....	.....	65.67	.....	14.72
1885.....	.....	0.5	.....	3.06	.....	15.22	.....	10.66
1886.....	1.57	.....	.....	5.57	33.33	.....	.....	2.84
1887.....	3.71	.....	11.17	.....	.....	21.15	5.26	.....
1888.....	9.72	.....	15.34	.....	34.15	.....	.....	0.56
1889.....	2.26	.....	.....	2.17	.....	23.64	12.29	.....
1890.....	.....	5.00	8.97	.....	26.2	.....	46.27	.....
1891.....	15.31	.....	2.53	.....	13.2	.....	24.63	.....
1892.....	2.07	.....	8.95	.....	.....	5.00	0.82	.....
1893.....	5.23	.....	16.92	.....	21.05	.....	8.92	.....
1894.....	.....	7.78	.....	14.22	4.35	.....	29.28	.....
1895.....	.....	2.06	3.64	.....	4.17	.....	16.12	.....
1896.....	3.42	.....	11.56	.....	2.67	.....	11.07	.....
1897.....	2.22	.....	1.45	.....	.....	10.4	.....	8.04
1898.....	3.66	.....	.....	7.34	8.7	.....	.....	15.44

CONCLUSION.

The foregoing survey and analysis of the statistics of the State for the year is closed with a general table which is a recapitulation of the leading totals for each district and the State.

Following this table will be found the text and tables of the reports of the several State inspectors in their order, and in them will be found all the detail concerning individual mines and county groups of mines which has here been given to the district groups and the State.

This section is followed by an appendix containing the registers of certificates of hoisting engineers and fire bosses, together with fees charged and collected for mine

Statistics of Coal Mining in
RECAPITULATION

DISTRICT.	MINES.						PRODUCTS.				
	Number of counties.	Number of mines.	Shipping mines.	Mines in local trade.	New mines.	Abandoned mines.	Total tons produced.	Tons of lump coal.	Tons of other grades.	Tons shipped.	Estimated capacity (in tons) of existing mines.
First.....	5	86	39	47	11	10	2,209,362	1,716,685	492,677	1,759,512	5,121,710
Second.....	8	184	48	136	27	27	2,551,110	2,080,702	470,408	2,113,432	5,908,740
Third.....	7	217	21	196	64	32	721,846	590,299	131,547	549,799	1,272,500
Fourth.....	7	94	39	55	2	3	2,572,059	2,178,132	393,927	1,989,896	5,633,425
Fifth.....	10	79	51	28	8	8	3,925,690	2,718,175	1,207,515	3,366,367	9,537,550
Sixth.....	5	98	72	26	1	4	3,459,933	2,713,399	746,533	3,021,521	7,180,900
Seventh.....	10	123	59	64	7	8	3,159,300	2,211,403	947,897	2,796,361	6,428,100
Totals.....	52	881	329	552	120	92	18,599,299	14,208,795	4,390,504	15,596,888	41,082,925
Averages.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Whole number of openings reported in 1897, 853.

Number of new mines or places opened during the year, 120.

Number of mines exhausted or abandoned during the year, 92.

Whole number of openings reported for 1898, 881.

the State of Illinois, 1898.

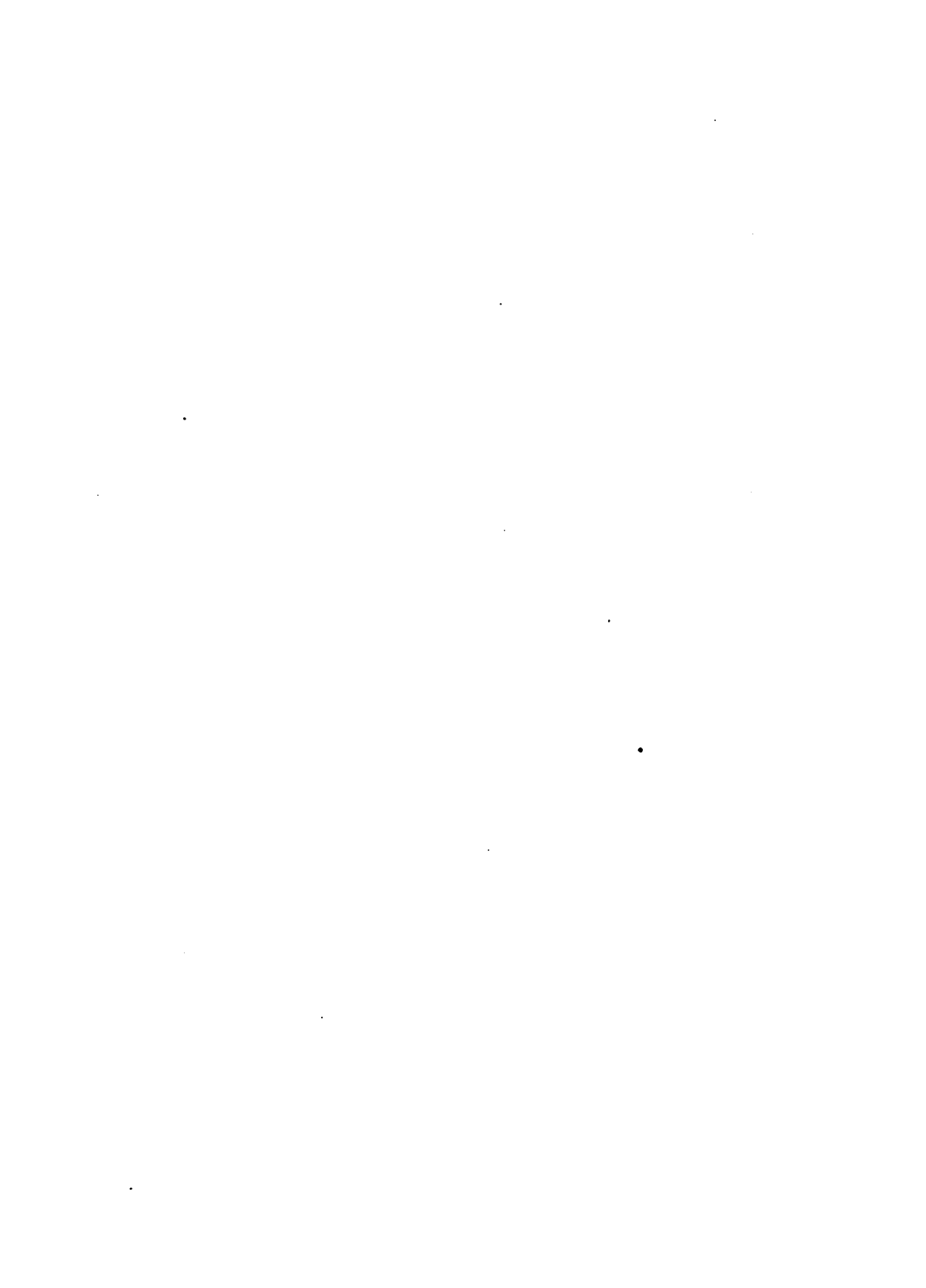
BY DISTRICTS.

VALUES.		EMPLOYES.			Average number of days of active operation.	Number of kegs of powder used.	CASUALTIES.				WAGES.		MACHINES.		
Average value per ton of lump at the mine.	Aggregate value of total product.	Number of miners.	Number of other employes.	Total employes.			Killed.	Injured.	Widows.	Children.	Average price paid per gross ton.		No. of mines using.	Number of machines in use.	Total tons cut by machines.
											For hand mining.	For machine mining.			
\$1.1045	\$2,024,429	5,935	1,442	7,377	163.3	27,843	12	105	8	29	\$0.603	\$0.37	2	17	65,122
1.16	2,609,696	5,336	1,463	6,799	161.3	43,205	10	60	8	17†	.585	.27	2	8	87,944
1.108	708,691	1,502	298	1,800	135.4	21,601	4	12	3	2*	.834	.31	1	2	10,412
.9005	2,136,629	2,921	1,109	4,030	162.3	59,665	19	92	11	22	.437	.272	7	56	555,602
.80	2,576,994	4,424	1,669	6,093	191.6	86,244	5	48	..	....	.387	.319	15	133	1,054,678
.746	2,248,733	3,445	1,217	4,662	182	71,757	8	75	7	20	.404	.336	18	123	1,059,400
.868	2,262,426	2,957	1,308	4,265	135.9	69,671	17	48	9	23	.344	.304	10	53	582,477
.....	\$14,567,598	26,520	8,506	35,026	.....	379,986	75	438	46	113	.....	.....	55	392	3,415,635
\$0.918	.....	.....	.....	.....	156.8	.....	..	.....	.....	.....	\$0.4409	\$0.31	37	.....	.....

* Price per screened ton.

† Price for mining 340,590 screened tons, 75.2 cents per ton.

‡ Average for 14,558,633 gross tons.



ANNUAL REPORTS

OF THE SEVERAL

State Inspectors of Coal Mines.

FIRST INSPECTION DISTRICT—1898.

Counties: Grundy, Kankakee, LaSalle, Livingston, Will.

HECTOR MCALLISTER, *Inspector*, Streator.

HON. DAVID ROSS, *Secretary*,

State Bureau of Labor Statistics, Springfield, Illinois:

SIR:—In compliance with section 12 of the mining law of this State, I herewith submit the fifteenth annual report of the coal mines in the First Inspection District, for the year ending July 1, 1898. This report presents tabulated statements showing the number of mines in operation, both shipping and local; the depth of coal below the surface; the geological number and thickness of the various seams; the number of new and abandoned mines, with the total number of persons employed at each mine; the number of tons of lump coal and of other grades, with the average value of both at the mines; the aggregate value of the total product; the number of kegs of powder used; the number of fatal and non-fatal accidents; the number of widows and orphans, and the number of days of active operation in all mines in the district.

The following is a summary of the statistics of the year 1898:

Total number of mines.....	86
Number of shipping mines.....	39
Number of local mines.....	47
Number of new mines.....	11
Number of abandoned mines.....	10
Number of miners.....	5,935
Number of other employes.....	1,442
Total number of employes.....	7,377
Number of fatal accidents.....	12
Number of non-fatal accidents.....	103
Number of wives made widows.....	8
Number of children left fatherless.....	29
Total tons of coal produced.....	2,209,362
Tons of lump.....	1,716,685
Tons of other grades.....	492,677
Average value per ton of total product at the mine.....	\$9.911
Average value of lump coal per ton.....	\$11.045
Average value of other grades per ton.....	\$9.258
Aggregate value of total product.....	\$2,024,429
Average price paid per gross ton for hand mining.....	\$9.603
Average price per gross ton for machine mining.....	\$9.37
Average number of days of active operation.....	163.3
Number of mines operated by hand mining.....	84
Mines using machines.....	2
Number of kegs of powder used.....	27,843
Tons of coal cut by machines.....	65,122
Number of machines in use.....	17
Number of tons of coal shipped.....	1,759,512
Tons sold to local trade.....	280,942
Tons consumed at the plant.....	168,908
Tons of coal mined to each fatal accident.....	184.113
Tons of coal mined to each non-fatal accident.....	21.450
Number of employes per fatal accident.....	615
Number of employes per non-fatal accident.....	72

Coal production by counties in the First district, with increase or decrease in each, for the years ending June 30, 1897 and 1898.

Counties.	Total Output of all Grades of Coal in Tons.		Increase.	Decrease.
	1897.	1898.		
Grundy	1,077,576	796,249		281,327
Kankakee	180,683	84,632		96,051
LaSalle	1,508,833	1,165,490		343,343
Livingston	145,206	122,087		23,119
Will	25,682	40,904	15,222	
Total	2,937,980	2,209,362	15,222	743,840
Decrease				743,840
Increase				15,222
Net decrease				728,618

This decrease is due to the continuous strike of five and a half months duration during the first part of the year. The gain in Will county is due to the fact that the miners in this county continued at work nearly full time during the strike.

New Mines.—LaSalle county.—The Piny Coal Co. of Streator, located on the Benekindorf farm, two miles north of Streator, has sunk a new shaft about 400 feet south of the old one, and will use the old one for an air shaft.

S. A. Muntz & Sons have opened a new mine in South Streator, which is intended to supply local trade only.

Love & Sons have opened a new mine two and one half miles north of Wilsman. The shaft is 73 feet deep; the machinery at this time is light and intended for local trade only.

James Plauger, Daniel Verzain and Taylor & Jennings have opened new mines near Ottawa.

Livingston county.—C. G. Darm has opened a new mine near Streator.

A. M. Barackman, of Streator, has opened a new mine at Coalville.

Edgar Hamilton has opened a new mine at Coalville.

Kimes' Coöperative Coal Co. has opened a new mine near Coalville.

Abandoned Mines.—LaSalle county.—William Thomas & Co. have abandoned their mine one mile northwest of Streator, at the Eagle Clay Works.

Price & Jones have abandoned their mine on Prairie Creek, near Streator.

Sowerby Bros. have abandoned their mine, one mile north of Streator, and opened a new one a quarter of a mile south of the old one.

Livingston county.—John Caswell has abandoned his mine at Coalville.

His son have abandoned their mine at South Streator.

The Wilmington Star Coal Co. has abandoned its No. 3

Kay has abandoned his mine near Morris, and
miles north of Morris.

He & his partner have abandoned their mine near

Will county.—Robert Crighton has abandoned his mine at Braidwood.

Fires.—On September 22, 1897, the top works of the Carbon Hill mine No. 1, belonging to the Star Coal Co., were consumed by fire. The fire occurred during the strike; its origin is not known, but it is thought to have been incendiary.

Floods.—The mines of the following proprietors were flooded with water during the heavy rainfalls in March, 1898, at Streator, in LaSalle county: The A. V. Swarthout Coal Co., W. D. Thorn, Joseph Fairbairn and Edward Dawson. In Livingston county: Joseph Kilburn, Oscar Kimes, Thos. Edwards, C. G. Darm, Burrell & Reese and J. Massy & Son.

Improvements.—William Maltby, of Braidwood, has put in a shaker screen and has also erected an eight-foot fan, which has greatly improved the ventilation.

The Big 4 Wilmington Coal Co. has put in a shaker screen of its own design, which is working very successfully.

The LaSalle County Carbon Coal Co. has put in at its LaSalle mine a shaker screen and erected an elevator and storage hopper for handling screenings, of one hundred tons capacity.

The C., W. & V. Coal Co., at Streator, has put in shaker screens at its mines Nos. 1 and 2; also at its "R" shaft at Braidwood, all of which are working very successfully.

The Pontiac Coal Co. has purchased the mine formerly owned by Richard Evans & Sons, at Pontiac, Livingston county. This company has completed the air and escape shaft, which has put the ventilation of the mine in good order, and has increased the safety of the miners and other employés in the mine.

New Company.—A company of miners has been engaged for six months in sinking a shaft at Forrest, Livingston county. The shaft was sunk to the depth of 72 feet, when it was abandoned, owing to the difficult nature of the ground and the immense quantity of water encountered. The timbers were too light for the depth of the shaft, which caused a collapse and the shaft was lost.

The relations between the operators and miners have been harmonious since the strike; no stoppage of any kind has occurred in this district, except at a few mines where new scales were put in, and this was amicably adjusted. The prospect of the coal trade in this district for the coming year is very flattering for a large output, as all the mines are working nearly full time at this date.

Fatal Accidents.—December 21, 1897, Frank Brazina, a miner, came to his death by an explosion of gas in the Star Coal Company's mine at Spring Hill, LaSalle county. He had just gone in that morning to look for a place, but did not find one to suit him. W. J. Brown, mine manager, told him to go home and come back the next morning and he would have a place ready for him; but instead of going on top, he went to the south side into an old abandoned entry, through a door with a danger signal on it, and over falls and through water two feet deep, with a naked light, when an explosion of gas occurred, killing him instantly. Deceased was 35 years of age and single.

February 28, 1898, Michael Creshak, a miner, aged 26 years and married, had his back injured by a fall of rock in his room in the No. 1 mine of the Chicago, Wilmington & Vermilion Coal Co. at Heenanville, LaSalle county. At the time of receiving his injuries he was setting a prop under a bad rock, when a portion of it gave way, striking him on the body. He was taken to the hospital, where he died June 19, three and a half months after receiving his injuries. Deceased leaves a widow and two children.

March 9, 1898. Christian Aderholdt, a miner, aged 58 years, married, was fatally injured in James Cahill's mine, Peru, LaSalle county, by a fall of rock at the face of his room, in the first north entry. Deceased and his partner had been brushing and were in the act of cleaning the rock away, when, without any warning, a large rock fell, crushing him on the left side and breaking his left leg, and injuring him internally. At the time of the accident it was not thought that he was fatally injured, but he died of internal hemorrhage about 9 o'clock the same evening. He leaves a widow and five children, three dependent.

March 15, 1898, Joseph Diggle, a miner, aged 52 years, married, was severely burned by an explosion of powder in the Matthiessen & Hegeler Zinc Co.'s mine, at LaSalle, LaSalle county. Deceased, at the usual time of firing, 10 a. m., had made two cartridges and filled them with powder, and, being in a hurry to get the blasts off in time, had neglected to close the end of the cartridge, and the supposition is that a spark from his lamp ignited the powder, burning him severely about the chest, face and arms. Although the burns were painful and extensive, they were not considered at the time of a serious nature; but he died of his injuries April 2, eighteen days after the accident. Deceased leaves a widow and four children, three of whom are dependent.

March 16, 1898, James Black, a coal picker, aged 60 years and married, was caught by the cage and instantly killed, at the No. 2 mine of the Star Coal Co., Carbon Hill, Grundy county. It appears from the evidence of the cager, William Taylor, that he had belled away an empty cage for the mine manager to come down upon, and had turned away to get a car ready for the next cage, and did not see deceased on the opposite side of the shaft. It is supposed the deceased was reaching over the cage to take off a piece of coal, when the cage was taken away suddenly. Deceased was taken to the door-head and thrown back, breaking his neck. He had been warned several times to keep away from the cage. He leaves a widow and nine children, five of whom are dependent.

March 30, 1898, Joseph Cugnatti, a miner, aged 60 years, single, was fatally injured at the Big 4 Wilmington Coal Co.'s mine at Coal City, Grundy county. Deceased was being hoisted out with five others, and when about thirty-five feet from the bottom he fell from the cage to the bottom of the shaft. This is a round shaft and there is about eighteen inches of space between the wall of the shaft and the platform of the cage from which he fell. Deceased died of his injuries.

April, a road man, aged 50 years and married, was killed by a fall of rock while at work in James

Cahill's mine at Peru, LaSalle county. Deceased was taking down some loose rock on the entry, when a piece fell on him, causing injuries from which he died four hours after the accident. He leaves a widow.

May 17, 1898, Arthur Coop, a miner, aged 25 years and married, was fatally injured at 7:10 a. m. in the C., W. & V. Coal Co.'s "R" shaft southwest of Braidwood, Grundy county. The accident occurred about ten minutes after work commenced in the morning. Deceased and his brother, George Coop, had gone to their room, when they observed a dangerous rock near the face of their roadway, and determined to secure it before commencing work. Deceased went back on the roadway to get a timber, and as he was coming back, and about thirty feet from the face, a mass of rock fell on him, crushing his head so that he died three hours after receiving his injuries. He leaves a widow and three children, all dependent.

June 2, 1898, Joseph Feletto, a miner, aged 28 years, single, was fatally injured by a fall of rock at the face of his entry in the straight south entry in the Diamond No. 4 mine of the Wilmington Mining and Manufacturing Co., Grundy county. Deceased was cutting in the brushing along one side of the roadway, and had cut from one break to another close to the face, which was about three feet apart and within three inches of a smooth in the top, when suddenly without any warning a large rock weighing about 3,000 pounds fell on him, breaking his neck; he died 30 minutes after receiving his injuries. This accident was due to the victim's own negligence; with one prop in the center of the roadway the accident would have been avoided.

June 2, 1898, Thomas Ward, a miner, aged 43 years, was instantly killed while at work in No. 1 mine of the C., W. & V. Coal Co., at Heenanville, six miles south of Streator, LaSalle county. He was loading a car at the time when a great mass of rock came down on him. He was working alone and was very hard of hearing, and if the roof gave any warning he could not hear it. The evidence showed that deceased got an empty car about 2 p. m. He asked the men in the next room to give him a push in with the car. Mr. Arthur Goslin complied with his request, and stated that the room was well propped and there seemed to be no danger at that time. About ten minutes later they heard a fall, and going into the room, saw the rock down and gave the alarm. I found, on examining the rock, there was a slip running diagonally across the room from the right to the left side, and another one running nearly parallel with the room on the right rib at the thick end of the rock, and between those two slips the rock fell. Deceased leaves a widow and three children, all dependent.

June 7, 1898, Zathan Fox, a driver, aged 22 years, single, was fatally injured by a fall of rock in the Braceville Coal Co.'s No. 4 mine at Braceville, Grundy county. At the time of receiving his injuries he was going in with two cars, the first one being empty, the second loaded with props. On this entry there is quite a grade down to the first right turn, in favor of the empties. He was sitting on the car of props and going at a good speed, when his light went out. The first car ran off the track at the frog, knocking out a set of timbers, which let down a large mass of rock and knocked

Non-Fatal Casualties—First District—1898.

Date.	Name.	Age.	Residence.	Married.	Single.	Children.	Dependents.	Character of Injury.	Time lost, days.
1897.									
Aug. 20	George T. Kerr	28	Fairbury	1	1			Knee crushed	90
Sep. 10	A. A. Brown	42	Gardner	1			1	Back injured	15
16	John Wilson	48	Fairbury	1	6		5	Side and arm crushed	70
19	Thos. Kelley	40	Fairbury	1	2		3	Foot injured	208
22	Evan Williams	40		1	4		5	Leg broken	107
27	Gus Thoren	35	Clark City	1	1			Foot injured	38
28	Thos Thornton	30	Streator	1			1	Ribs broken	30
Nov. 2	Archie Frew	35	Clark City	1			1	Foot injured	23
29	Thos. Powell	44	Fairbury	1	5		6	Leg broken	*
Dec. 6	Chas. Mollie	40	Braidwood	1	3		4	Back injured	7
9	Wm. Fox	41	Braceville	1	4		5	Knee fractured	105
10	Mike Pomatti	36	Coal City	1			1	Foot injured	17
11	Thos. Burns	30	Oglesby	1			1	Hand injured	74
13	A. Schimmel	50	Diamond	1	6		7	Leg injured	35
13	Edward Murphy	27	Carbon Hill	1	3		4	Head, back and leg injured	21
13	Alma Lettsome	24		1	4		5	Back and shoulder injured	15
14	Aug. Bambesaro	40	Coal City	1	3		4	Foot injured	20
14	James Alroyd	22	Braceville	1	1			Ankle injured	28
14	Joe Branco	40	Diamond	1	3		4	Back injured	*
18	Peter Bednarsh	48	Peru	1	3		4	Leg broken	†
20	George Bell	30	Streator	1	1			Hip and collar-bone broken	131
21	John Shallow	50	Peru	1			1	Thigh injured	16
22	John Vernon	21	Streator	1				Finger bruised	28
22	Joseph Dermee	40	LaSalle	1			1	Leg fractured	111
23	Jos. Slice	38	Braidwood	1	4		5	Leg injured	77
1898.									
Jan. 3	Mart. Maddellino	32	Coal City	1	3		4	Toe bruised	20
6	Mike Mcnamara	20	Braidwood	1	1			Foot injured	21
6	Wm. Davidson	35	Streator	1	4		5	Finger crushed	155
7	Joe Swansboro	38	Braidwood	1	2		3	Eye injured	28
10	Albert Verhey	22	Diamond	1				Leg broken	84
11	Caponi Ponstone	35	C. B. June'n	1				Leg crushed	42
13	John Tracy	30	Diamond	1	3		4	Arm broken	56
14	Geo. Peters	32	Streator	1	1			Head and foot injured	20
14	W. Babbington	21	Braidwood	1	1			Hand bruised	7
17	Jehn Grogan	54	Streator	1			1	Head injured	7
19	Thos. Watts	16	Carbon Hill	1	1			Body bruised	10
19	Jos. Pomotto	55	Braidwood	1	2		4	Finger crushed	147
22	H. Perry	65	Carbon Hill	1	3		3	Arm injured	14
24	P. Gatemala	33		1	3		4	Leg injured	10
26	Geo. Olinger	43	Coalville	1	4		5		23
28	Jos. Jacover	24	Braidwood	1				Hand bruised	7
Feb. 1	F. Modrjanski	35	LaSalle	1	1			Jaw broken	77
1	Levi Myers	50	Oglesby	1	2		3	Hand injured	23
1	Henry Brown	28	Braidwood	1					21
4	Wm. Suddish	36	Carbon Hill	1	3		4	Foot injured	12
11	T. McQuin	41		1	2		3	Knee injured	14
12	Pat Blaske	54	LaSalle	1	8		6	Leg bruised	44
19	Wm. Anderson	17	Braidwood	1	1			Finger crushed	28
22	Wm. Robnett	38	Rutland	1	1		2	Back injured	43
24	M. Serevonis	21	Carbon Hill	1	1			Leg injured	10
24	J. Hutton	30		1	3		4	Leg broken	90
24	J. Bolen	18		1	1			Back injured	10
25	G. R. Smith	40	Peru	1			1	Arm and shoulder crushed	40
28	L. Barls	23	Carbon Hill	1	1			Back injured	13
Mar. 1	L. E. Denny	31		1	3		4	Foot injured	12
4	Jos. Rule	37		1				Leg injured	10
4	Henry Guy	19	Streator	1	1		1	Leg and hand injured	36
4	Ang. Greever	19	Braidwood	1	1			Finger bruised	7
4	John Cooper	58		1	5		6	Hand injured	28
5	Modesta Leone	34	Diamond	1	3		4		42
8	Chas. Huber	36		1	4		5	Shoulder injured	35
8	Mike Barra	38	Coal City	1	1			Foot injured	35
11	Fred Berge	46	Streator	1	6		7	Leg and hand injured	70
14	John Dillon	24	LaSalle	1	1			Side injured	25
19	Adam Pooley	45	Braidwood	1	4		5	Hand bruised	23
21	Andrew Duetko	21	Heenanville	1	1			Foot crushed	16
21	Robert Robertson	41	Diamond	1	5		6	Back and head injured	28
22	Chas. McLean	35	Braidwood	1	3		4	Back injured	23
28	Jos. Miller	25	Carbon Hill	1	1			Side bruised	10
28	George Moore	50	Braidwood	1	2		1	Leg injured	28

Non-Fatal Casualties—First District—Concluded.

Date.	Name.	Age.	Residence.	Married.	Single.	Children.	Dependents.	Character of Injury.	Time lost—days.
1898.									
April 8	P. Berrello	38	Kangley	1	...	2	3	Face cut	16
15	Tom Geroat	35	Braidwood..	1	...	3	4	Foot injured	42
15	Emile Sabola	54	"	1	...	4	5	Side and arm injured	23
18	Godfrey Morrison	45	"	1	...	4	5	Toes crushed	70
21	John Alderson	22	Carbon Hill	1	...	1	...	Hand crushed	16
21	A. Budrewith	26	Braceville	1	...	1	...	Leg broken	70
23	Frank Stiffel	40	LaSalle	1	...	1	...	Foot crushed	46
23	Frank Koecca	35	Braidwood..	1	...	3	4	Leg bruised	7
26	Stany Zura	30	LaSalle	1	...	1	...	Head cut	8
27	William Allison	55	Braidwood..	1	...	2	2	Back injured	21
29	William Boyd, Jr	33	"	1	...	1	...	Foot injured	36
30	Jake Braugham	22	Diamond	1	...	1	...	Finger injured	21
May 2	Benj. Bashton	50	Streator	1	...	6	4	Thumb broken	30
2	Burt Pascoe	18	Oglesby	1	...	1	...	Leg injured	35
3	Frank Hanpa	40	Braidwood..	1	...	4	5	"	28
10	B. Gabriel	20	Carbon Hill	1	...	1	...	Body injured	10
16	John Koslowski	25	Oglesby	1	...	3	4	Foot injured	*
19	Mike Buasik	24	Streator	1	...	1	...	Head injured	42
20	Chas. Schroll	51	Braidwood..	1	...	1	...	Foot injured	35
21	A. Belzerine	40	Carbon Hill	1	...	3	4	Leg injured	14
23	P. Benetone	28	"	1	...	1	...	Hand injured	10
28	John Hudella	35	Streator	1	...	3	4	Leg injured	18
31	Joe Butchko	45	"	1	...	6	7	Hand injured	14
31	John Dauck	35	LaSalle	1	...	2	3	Body injured	13
June 1	Mike Pack	59	Braceville..	1	...	3	4	Leg broken	30
10	Jacob Nohara	50	Braidwood..	1	...	3	4	Leg and head injured	14
13	Shottin Spragin	34	Streator	1	...	3	4	Back and ribs injured	17
13	Stephen Lobo	42	"	1	...	6	7	Hand bruised	14
15	William Clelland	50	Braidwood..	1	...	4	3	Back bruised	21
16	Mike Retoff	18	Streator	1	...	1	...	Shoulder injured	14
17	Stephen Verden	50	"	1	...	5	6	Head cut	*
21	Frank Brochi	30	Coal Br. Jc.	1	...	1	...	Face cut	10
29	Frank Wagren	22	LaSalle	1	...	1	...	Back and ribs crushed	24
	Totals			66	37	199	253		

Total men injured	103
Not yet recovered, July 1, 1898	5
Number recovered	98
Time lost by men recovered	3,433 days
Average time lost per man recovered	35

* Not recovered July 1, 1898.

† Amputated; not at work July 1, 1898.

‡ Amputated.

Recapitulation of Non-Fatal Casualties—First District—1898.

Residence.	No.	Occupation.	No.	Nature of Casualty	No.	Colliery.	No.
Braceville.....	4	Cagers.....	3	Compressor, lever.	1	Braceville Coal Co....	4
Braidwood.....	24	Drivers.....	11	Door.....	1	Big Four Coal Co....	5
Carbon Hill.....	18	Engineers.....	1	Falling coal.....	29	Cahill, James.....	2
Clark City.....	2	Foreman.....	1	Falling rock.....	54	Coöperative Coal Co....	1
Coal City.....	4	Miners.....	80	Falling timber.....	2	C. W. & V. Coal Co....	30
Coal Br. Je.....	2	Mach. runners.....	2	Machine jack.....	1	Gard. & Wilm. C. Co....	3
Coalville.....	1	Picker.....	1	Pick.....	1	Kimes, Oscar.....	1
Diamond.....	8	Roadmen.....	2	Pit cars.....	13	LaSalle Co. Coal Co....	7
Fairbury.....	5	Timberman.....	1			M. & H. Zinc Co.....	2
Gardner.....	1	Top man.....	1			Oglesby Coal Co.....	4
Heenanville.....	1					Otter Creek Coal Co....	2
Kangley.....	1					Rutland Coal Co.....	1
LaSalle.....	8					Star Coal Co.....	19
Oglesby.....	4					Walton Bros.....	4
Peru.....	3					Wilm. M. & Mfg. Co....	18
Rutland.....	1						
Streator.....	16						
Totals.....	103		103		103		103

Table showing the Nature of Injuries, Number of Persons Injured, Dependents, Time Lost, with Averages and Percentages.—First District.

NATURE OF INJURIES.	Number.	Married.	Single.	Dependents.	TIME LOST.		Per cent of injuries.
					Total days.	Average days.	
Ankle injured.....	1		1		28	28	.97
Arm broken.....	1	1			56	56	.97
Arm injured.....	1	1		3	14	14	.97
Arm and shoulder injured.....	1	1		1	40	40	.97
Back injured.....	13	10	3	35	246	19	12.62
Body injured.....	3	1	2	3	33	11	2.91
Eye injured.....	1	1		3	28	28	.97
Face injured.....	2	1	1	3	20	10	1.94
Feet injured.....	15	9	6	26	560	37.5	14.56
Fingers broken.....	1	1		4	30	30	.97
Fingers injured.....	6	2	4	9	286	47.4	5.83
Hands injured.....	12	8	4	36	289	24.1	11.66
Heads injured.....	4	3	1	8	57	14.1	3.89
Head and back injured.....	1	1		4	21	21	.97
Head and foot injured.....	1		1		20	20	.97
Hip and collar bone injured.....	1		1		131	131	.97
Knees injured.....	3	2	1	8	209	69.2	2.91
Jaw broken.....	1		1		77	77	.97
Legs broken.....	7	5	2	23	381	54.3	6.8
Legs and hands injured.....	2	2		8	106	53	1.94
Legs and head injured.....	1	1		4	14	14	.97
Legs injured.....	16	11	5	46	513	32.1	15.53
Ribs broken.....	1		1		30	30	.97
Shoulder injured.....	2	1	1	5	49	24.1	1.94
Side and arms injured.....	4	2	2	10	133	33.1	3.89
Toes injured.....	2	2		9	62	31	1.84
Totals, averages and percentages.....	103	66	37	253	3,433	35	100.00

Grundy County—First District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades
1	Braceville Coal Co....	Braceville....	103	3.2	2	Sh.	S.	M.	162,000	130,000	32,000
2	Frederick Schultz....	Braceville....	77	2.8	2	Sh.	Ho.	..	600	600	..
3	W. Star M. Co., No. 3....	Coal City....	115	3	2	..	S.	..	8,763	7,233	1,530
4	.. No. 5....	Coal City....	128	3	2	..	..	..	25,555	21,120	4,435
5	Star Coal Co., No. 2....	Carbon Hill....	98	3	2	..	..	..	136,512	110,194	26,318
6	.. No. 3....	Carbon Hill....	99	3	2	..	..	..	94,512	77,990	16,522
7	C. W. & V. C. Co., "R"....	Braidwood....	99	3	2	..	..	..	72,505	57,062	15,443
8	W. C. M. & M. Co....	Diamond....	105	3	2	..	..	..	135,736	113,324	22,412
9	Big 4 W. Coal Co....	Coal City....	90	3	2	..	..	..	131,212	107,840	23,372
10	Gardner & W. C. Co....	Gardner....	210	3	2	..	..	..	12,298	10,116	2,182
11	J. T. Espley....	Morris....	60	3	2	..	H.	..	3,976	3,626	350
12	Charles Heather....	..	35	3	2	..	..	..	900	800	100
13	A. W. Telfer & Son....	..	66	2.8	2	..	..	..	2,201	1,701	500
14	Griffith & Wren....	..	24	2.6	2	..	Ho.	..	1,327	967	360
15	James Bell....	..	41	2.6	2	..	..	..	1,212	1,037	175
16	William Wood....	..	70	2.4	2	..	..	..	1,500	1,200	300
17	Harry Kay, No. 3....	..	62	2.9	2	..	..	..	700	700	..
18	Frank Gilbride....	..	80	3.2	2	..	..	..	2,540	2,402	138
19	Thomas Stott & Son....	..	92	3.2	2	..	..	..	1,000	1,000	..
20	William Laherty....	..	60	3	2	..	..	..	1,200	1,000	200
Totals.....									796,249	649,912	146,337
Averages.....											

Whole number of openings reported in 1897, 26.

Number of new mines or places opened during the year, 1.

Number of mines exhausted or abandoned during the year, 7.

Whole number of openings reported for 1898, 20.

Kankakee County—First District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades
1	Gardner & W. C. Co....	Gardner.....	106	4.8	7	Sh.	S.	B.	82,432	43,066	39,346
2	William Treasure....	Essex.....	63	2.8	2	Sh.	Ho.	M.	2,200	2,200	..
Totals.....									84,632	45,266	39,346
Averages.....											

Whole number of openings reported in 1897, 2.

Whole number of openings reported for 1898, 2.

Grundy County, 1898—Concluded.

Number.	VALUES.		EMPLOYEES.				WAGES.			Day of active operation.	Kegs of powder used.		ACCI- DEN'S		Capacity of mine— tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employes un- der ground.	All employes above ground.	Total employes.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly		Fatal.	Non-fatal.			
							For hand- mining.	For machine- mining.							
1	\$1 04	\$143,200	522	78	30	630	\$0 68		S-M.	139		1	4	300,000	
2	1 75	1,050	5		2	7	1 00		..	190				1,000	
3	1 04	7,721	53	12	7	72	68		..	46	37			120,000	
4	1 04	22,541	69	24	12	105	68		..	120	67			100,000	
5	1 04	119,339	410	41	13	464	68		..	136	86	1	7	360,000	
6	1 04	84,084	352	33	10	395	68		..	136	95		11	240,000	
7	1 03.5	61,376	278	50	18	346	68		..	117		1	15	187,200	
8	1 04	122,295	450	40	15	505	68		..	130	50	1	18	260,000	
9	1 04	116,127	406	76	15	497	68		..	128	11	1	5	350,000	
10	1 38	15,006	31	4	9	44	68		..	155			1	25,000	
11	2 00	7,479	10	1	2	13	1 20		..	254				18,000	
12	2 00	1,675	4		1	5	1 20		W.	175				3,000	
13	2 00	4,752	6		1	7	1 20		..	275				5,000	
14	2 00	2,150	2		1	3	1 20		..	298				1,300	
15	2 25	2,456	4		1	5	1 20		..	175				4,000	
16	2 25	3,000	6		1	7	1 20		..	200				5,000	
17	2 25	1,575	3		1	4	1 20		..	150				1,500	
18	2 25	5,515	6		1	7	1 20		..	300				3,000	
19	2 25	2,250	3		1	4	1 20		..	195					
20	2 00	2,140	6		1	7	1 20		..	125				2,000	
.....		\$725,731	2,626	359	142	3,127					346	5	61	1,986,000	
\$1 06.9							\$1 06.9			172					

Kankakee County, 1898—Concluded.

Number.	VALUES.		EMPLOYEES.				WAGES.			Days of active operation.	Kegs of powder used		ACCI- DEN'S		Capacity of mine— tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employes un- der ground.	All employes above ground.	Total employes.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly						
							For hand- mining.	For machine- mining.							
1	\$1 17	\$56,706	112	59	10	181	\$0 47	\$0 37	S-M.	145	2,040	..	2	200,000	
2	2 00	4,400	6	1	2	9	1 00	.....	..	175	.....	.....	.....	4,000
	.....	\$61,106	118	60	12	190	.....	.....	.....	.....	2,040	..	2	204,000
	\$1 21	.....	.....	.....	.....	.....	\$0 48.4	\$0 37	.....	160	.....	.....	.....	.....

LaSalle County—First District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.							OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.		Total tons produced.	Tons of lump.	Tons of other grades
1	James Cahill's Estate	Peru	350	3	12	Sh.	S.	M.		73,420	61,018	12,402
2	LaSalle C. C. C., No. 1	LaSalle	440	3.6	12	"	"	"		70,984	60,590	10,394
3	LaS. C. C. C., LaSalle.	"	392	3.6	12	"	"	"		64,091	54,708	9,383
4	Union.	"	390	3.6	12	"	"	"		74,196	60,741	13,365
5	Rockw'll	"	375	3.6	12	"	"	"		40,815	32,066	8,749
6	C. W. & V. C. C., No. 1	Streator	96	8	12	"	"	B.		170,839	110,350	60,489
7	Star Coal Co., No. 2	"	116	6	7	"	"	M.		163,409	113,358	50,051
8	"	"	86	5	7	"	"	B.		65,618	40,861	24,757
9	"	"	125	3	7	"	"	M.		21,873	16,774	5,099
10	Acme Coal Co.	"	110	6.6	7	"	"	"		51,800	34,534	17,266
11	Wm. Howe & Co.	"	50	5	7	"	"	"		36,137	24,037	12,100
12	Bate & Cotter, lesse's	"	100	5	7	"	"	B.		24,452	20,852	3,600
13	Price & James	"	32	5	7	"	"	Ho.		2,050	1,457	593
14	Nelson & Westerlund	"	20	4.8	7	"	"	M.		3,042	2,742	300
15	Wm. Thomas Coal Co.	"	60	5	7	"	"	S.		3,065	2,365	700
16	Sowenby Bros.	"	40	4.6	7	"	"	Ho.		1,485	1,094	391
17	Swarthout Coal Co.	"	55	4.6	7	Sl.	"	"		3,309	2,889	420
18	D. W. Thorne	"	50	4.6	7	"	"	"		850	800	50
19	Benjamin Davis	"	35	4.6	7	Sh.	"	"		860	760	100
20	S. A. Muntz & Son	"	35	5	7	"	"	"		3,168	2,032	1,136
21	Robert Fairbairn	"	20	4	7	"	"	"		1,100	1,000	100
22	Alloway & Heinze	"	35	5	7	D.	"	"		850	700	150
23	E. B. Dawson	"	45	5	7	"	"	"		600	500	100
24	E. Hakes	Rutland	500	2.10	12	Sh.	S.	"		76,248	61,130	15,118
25	Oglesby Coal Co.	Oglesby	464	3.6	12	"	"	"		65,080	54,233	10,847
26	Standard Coal Co.	Seneca	100	2.9	12	"	"	"		14,601	13,480	1,121
27	Marseilles L. & W. P. Co.	Marseilles	120	2.10	12	"	"	"	*	35,000	35,000	.....
28	Charles Scott	Kangley	75	8.6	7	"	"	B.		2,000	1,500	500
29	John McNeil	"	75	8.6	7	"	"	Ho.		500	400	100
30	Charles Kain	Deer Park	175	3.6	7	D.	S.	"		240	200	40
31	Piney Coal Co.	Streator	65	4	7	Sh.	Ho.	M.		750	528	222
32	Love & Sons	Wilsman	73	3.2	7	Sh.	S.	B.		1,000	700	300
33	M. & H. Zinc Co.	LaSalle	310	4.6	5	"	"	"	*	88,861	88,861	.....
34	U. S. Silica Co.	Ottawa	45	2.4	7	D.	Ho.	M.	*	427	427	.....
35	John Halfinck	"	45	2.4	7	"	"	"		225	200	25
36	Taylor & Jennings	"	50	2	12	"	"	"		195	165	30
37	James Plauger	"	60	2	12	"	"	"		100	100	.....
38	W. A. Brown	"	55	2.4	12	"	"	"		175	150	25
39	James McCullough	"	60	2.4	12	"	"	"		680	640	20
40	Daniel Vezain	"	60	2.4	12	"	"	"		280	238	42
41	F. M. Fishburn	"	60	2.4	12	"	"	"		300	240	60
42	John Delbridge	"	45	2.4	12	"	"	"		425	400	25
43	Nelson Nelson	"	50	2	12	"	"	"		300	300	.....
44	Gus, Smith	"	60	2.4	12	"	"	"		200	200	.....
Totals										1,165,490	905,320	260,170
Averages												

* Mine run consumed by the company.

Whole number of openings reported in 1897, 39.

Number of new mines or places opened during the year, 6.

Number of mines exhausted or abandoned during the year, 1.

Whole number of openings reported for 1898, 44.

LaSalle County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.				WAGES.		Days of active operation.	Kegs of powder used.	ACCI- DENTS		Capacity of mine— tons.	
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employes un- der ground.	All employes above ground.	Total employes.	Price paid per gross ton.							
							For hand mining.	For machine mining.						
1	\$1 42	\$31,606	163	28	16	207	\$0 63		S-M.	230		3	2	105,000
2	1 20	76,658	225	42	29	296	63			118			1	240,000
3	1 20	69,225	180	30	24	234	63			125			1	150,000
4	1 20	77,672	230	34	28	292	63			123			3	240,000
5	1 20	41,804	120	22	17	159	63			111			2	125,000
6	89	109,007	398	58	18	474	47			130	8,540	2	4	395,000
7	91	111,664	390	63	25	478	47	*		125	8,170		11	387,000
8	93	42,208	198	45	11	254	47			91	1,730			180,000
9	1 04	18,108	115	16	7	138	65			133	98	1	1	62,500
10	93	35,152	100		10	132	47			160	400			12,000
11	1 10	31,281	50	9	9	68	47			221	314			70,000
12	1 10	25,817	150	25	10	185	47			190	600		2	90,000
13	1 50	2,541	8		1	9	48			135	35			
14	1 40	3,944	6	1	1	8	60			200				5,000
15	1 45	3,779	10		1	11	48		S-M.	130	30			6,000
16	1 50	1,797	4		1	5	48		W.	150				
17	1 25	3,779	5	1	2	8	65		W.	130				
18	1 50	1,218	5		1	6	75		S-M.	125				2,000
19	1 30	1,018	3		1	4	48		W.	140				9,000
20	1 50	3,446	4		1	5	48			273	5			3,168
21	1 00	1,025	2			2	48			100				
22	1 50	1,148	2			2	64			200				2,000
23	1 25	700	4		1	5	65			110	12			1,500
24	1 35	86,305	165	12	13	190	65		S-M.	136		1		100,000
25	1 13	65,080	198	34	28	260	63			105	10			200,000
26	1 29	17,726	36	6	4	46	68			208	6			20,000
27	1 10	38,500	30	4	3	37	78			300	25			35,000
28	1 50	2,500	4		1	5	60		W.	280	60			2,000
29	1 25	535	1		1	2	60			390	30			500
30	1 25	270	4		1	5	64			100	8			1,000
31	1 50	870	4		1	5	60			160	30			1,600
32	1 50	1,200	4		1	5	68			150	50			6,000
33	1 00	88,861	46	22	8	76	40			280	2,845	1	2	105,000
34	1 30	555	4	1	1	6	85			90	15			2,000
35	1 50	313	3		1	4	1 00			160	4			800
36	1 50	263	3			3	1 00			200	2			500
37	1 50	150	2			2	1 00			120				300
38	1 25	197	3			3	87.5			175	8			300
39	1 25	815	4			4	87.5			200	7			2,000
40	1 25	329	3		1	4	87.5			100	3			500
41	1 50	375	2			2	87.5		M.	120	4			1,000
42	1 50	606	2			2	87.5		W.	118	6			1,000
43	1 50	450	2			2	87.5			160	4			500
44	1 50	300	2			2	87.5			150	4			500
	.....	\$1,060,794	2,894	475	278	3,647	.....		.....	.....	23,136	7	34	2,573,668
	\$1.098	.....	.....	.....	.....	.....	\$0 55.2		.....	161	.....	.....	.....	.....

* Machine miners paid by the day.

Livingston County—First District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades
1	Pontiac Coal Co.....	Pontiac	464	2 8	2	Sh.	S.	M.	25,262	13,550	11,712
2	Diamond Coal Co.....	.....	208	5 8	5	..	..	..	5,765	3,343	2,422
3	Walton Bros.....	Fairbury.....	180	5	5	..	..	..	54,942	37,295	17,647
4	Coöperative Coal Co.....	.....	165	5	5	..	..	..	12,340	9,774	2,566
5	A. M. Barackman.....	Streator.....	57	4	2	..	Ho.	M.	1,564	939	625
6	Streator Clay Mfg. Co.....	.....	75	4.6	2	..	S.	..	* 4,120	4,120	.....
7	Joseph Kilburn.....	.....	40	4.6	2	..	Ho.	..	2,692	1,800	892
8	John Caswell.....	.....	50	4	1	..	..	..	1,200	900	300
9	R. Evans, Jr., & Bros.....	.....	40	4	..	..	..	..	2,813	2,413	400
10	Thos. Edwards & Son.....	.....	64	4	..	..	..	..	1,076	1,034	42
11	Oscar Kimes.....	.....	35	4.6	..	..	..	..	5,380	4,170	1,210
12	Edgar Hamilton.....	.....	60	4	..	D.	..	..	175	125	50
13	Kimes Coöper. Coal Co.....	.....	60	4	..	..	..	..	558	468	90
14	J. Massy & Son.....	.....	60	4.6	7	..	..	..	600	500	100
15	Burrell & Reese.....	.....	60	4.10	7	Sh.	..	..	1,350	1,050	300
16	C. G. Darin.....	.....	34	4.6	7	..	Ho.	..	640	600	40
17	Henry Singer & Sons.....	Cornell.....	150	3.6	5	..	..	..	1,610	1,610	.....
Totals.....									122,087	83,691	38,396
Averages.....											

* Mine run; consumed by Company.

Whole number of openings reported in 1897, 15.

Number of new mines or places opened during the year, 4.

Number of mines exhausted or abandoned during the year, 2.

Whole number of openings reported for 1898, 17.

Will County—First District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades
1	William Maltby.....	Braidwood.....	60	3	2	Sh.	S.	M.	33,804	26,676	7,128
2	Coöperative Coal Co.....	.....	55	2.10	2	..	Ho.	..	5,100	4,000	1,100
3	Robert Crichton.....	50	2.6	2	2,000	1,800	200
.....									40,904	32,476	8,428
.....											

Reported in 1897, 3.

During the year.

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ne.

Livingston County, 1898—Concluded.

Number.	VALUES.		EMPLOYEES.				WAGES.			Days of active operation.	Kegs of powder used.		ACCI- D'NTS		Capacity of mine— tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employes un- der ground.	All employes above ground.	Total employes.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly		Fatal.	Non-fatal.			
							For hand- mining.	For machine- mining.							
1	\$1 02	\$16,749	80	20	15	115	\$0 68	.....	S-M.	198	115	.....	.....	90,000
2	1 10	6,099	5	.....	3	8	50	.....	W.	253	300	.....	.....	7,042
3	1 30	60,436	28	9	6	43	45	.....	S-M.	190	1,277	.....	4	100,000
4	1 50	16,201	11	4	4	19	50	.....	.....	261	511	.....	1	20,000
5	1 00	1,189	15	1	.....	18	50	.....	.....	55	.....	.....	.....	10,000
6	1 00	4,120	10	2	2	14	47	.....	.....	180	30	.....	.....	10,000
7	1 50	2,877	12	1	.....	15	60	.....	.....	210	.....	.....	.....	5,000
8	1 50	1,455	5	.....	1	6	60	.....	.....	150	.....	.....	.....	.....
9	1 35	3,358	10	1	1	12	60	.....	W.	70	10	.....	.....	13,000
10	1 60	1,675	6	.....	1	7	60	.....	.....	90	15	.....	.....	5,000
11	1 30	5,784	9	1	3	13	48	.....	.....	160	.....	1	.....	15,000
12	1 30	177	1	.....	1	2	60	.....	.....	100	.....	.....	.....	500
13	1 40	682	2	.....	1	3	65	.....	.....	150	.....	.....	.....	1,000
14	1 50	825	3	.....	1	4	60	.....	.....	120	4	.....	.....	.....
15	1 50	1,695	7	.....	2	9	60	.....	.....	150	25	.....	.....	2,000
16	1 50	916	5	.....	1	6	47	.....	.....	100	8	.....	.....	2,500
17	1 50	2,415	5	.....	2	7	60	.....	.....	240	26	.....	.....	2,000
.....		\$126,653	214	39	48	301	.....		.....	.....	2,321	.....	6	283,042
\$1 27		.....	.....	.....	.....	.....	\$0 52.2		.....	157	.....	.....	.....	.....

Will County, 1898—Concluded.

Number.	VALUES.		EMPLOYEES.				WAGES.			Days of active operation.	Kegs of powder used.		ACCI- DEN'S		Capacity of mine— tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly		Fatal.	Non-fatal.			
							For hand- mining.	For machine- mining.							
1	\$1 35	\$37,795	63	11	9	83	\$0 68		S. M.	177				60,000	
2	2 00	8,560	15	4	2	21	1 00			190				15,000	
3	2 00	3,800	5	.....	3	8	1 00		W.	150				.....
	.....	\$50,145	83	15	14	112								75,000
	\$1 46.6						\$0 73.5			169					

Recapitulation by Counties—

	MINES.					PRODUCTS.					VALUES.	
COUNTY.	Number of mines.	Shipping mines.	Mines in local trade.	New mines.	Abandoned mines.	Total tons produced.	Tons of lump coal.	Tons of other grades.	Tons shipped.	Estimated capacity (in tons) of existing mines.	Average value per ton of lump at the mine.	Aggregate value of total product.
Grundy	20	10	10	1	7	796,249	649,912	146,337	738,912	1,986,000	\$1.069	\$725,731
Kankakee ...	2	1	1	..	..	84,632	45,286	39,346	78,106	204,000	1.21	61,106
LaSalle	44	20	24	6	1	1,165,490	905,320	260,170	845,411	2,573,668	1.098	1,060,794
Livingston ...	17	7	10	4	2	122,087	83,691	38,396	67,470	283,042	1.27	126,653
Will	3	1	2	..	..	40,904	32,476	8,428	29,611	75,000	1.466	50,145
Totals.....	86	39	47	11	10	2,209,362	1,716,685	492,677	1,759,512	5,121,710	.....	\$2,024,429
Averages..	...	...	...	...	...	...	...	.....	.....	.....	\$1.1045	.....

Whole number of openings reported in 1897, 85.

Number of new mines or places opened during the year, 11.

Number of mines exhausted or abandoned during the year, 10.

Whole number of openings reported for 1898, 86.

First District—1898.

EMPLOYEES.			Average number of days of active operation.	Number of kegs of powder used.	CASUALTIES.				WAGES.		MACHINES.		
Number of miners.	Number of other employees.	Total employes.			Killed.	Injured.	Widows.	Children.	Average price paid per gross ton.		Number of mines using machines.	Number of machines in use.	Total tons cut by machines.
									For hand mining.	For machine mining.			
2,626	501	3,127	172	346	5	61	2	12	\$0.691	.....	.....	.....	.....
118	72	190	160	2,040	....	2	....	....	.484	\$0.37	1	9	6,022
2,894	753	3,647	161	23,136	7	34	6	17	.552	.....	1	8	59,100
214	87	301	158	2,321	....	6	....	....	.522	.....	.....	.....	.....
83	29	112	169	.....	....	....	....	....	.735	.....	.....	.....	.....
5,935	1,442	7,377	.....	27,843	12	103	8	29	.....	.....	2	17	65,122
.....	.....	.....	163.3	.....	....	....	....	....	\$0.603	\$0.37	.....	.....	.....

1. The first step in the process of creating a new product is to identify a market need. This involves conducting market research to determine what consumers want and what problems they are trying to solve.

2. Once a market need has been identified, the next step is to develop a concept for a product that addresses that need. This involves brainstorming ideas and selecting the most promising one. The concept should be clear, concise, and focused on the benefits it offers to the target market.

3. The third step is to create a prototype of the product. This allows the development team to test the concept and make any necessary adjustments before moving forward with production.

4. After the prototype has been created, the next step is to conduct a feasibility study. This involves assessing the technical, financial, and operational aspects of the product to determine if it is viable for production. This step is crucial in ensuring that the product can be manufactured and marketed successfully.

5. Once the feasibility study has been completed, the next step is to develop a business plan. This document outlines the financial and operational aspects of the product, including the marketing strategy, production costs, and revenue projections. It is a key tool for securing funding and guiding the development process.

6. The final step in the process is to launch the product. This involves creating a marketing campaign to promote the product and reaching out to potential customers. The launch is a critical moment for the product, as it determines its initial success and sets the stage for future growth.

7. After the product has been launched, the development team should continue to monitor its performance and gather feedback from customers. This allows them to make any necessary adjustments and improve the product over time. Continuous improvement is a key factor in the long-term success of a product.

8. The final step in the process is to evaluate the overall success of the product. This involves comparing the product's performance against the goals set in the business plan. This evaluation can provide valuable insights into the product's market fit and help inform future product development efforts.

9. The final step in the process is to celebrate the success of the product. This is a moment of pride for the development team and a testament to their hard work and dedication. Celebrating success can boost morale and encourage the team to continue to innovate and create new products.

SECOND INSPECTION DISTRICT—1898.

Counties: Bureau, Henry, Marshall, Mercer, Peoria, Rock Island, Stark, Woodford.

THOMAS HUDSON, *Inspector*, Galva.

HON. DAVID ROSS, *Secretary*,

State Bureau of Labor Statistics, Springfield, Illinois:

SIR:—In compliance with section 12 of an act of the General Assembly defining the duties of State Inspectors of coal mines, and providing for the health and safety of persons employed therein, I have the honor to submit herewith to you the fifteenth annual report of the coal mines located in the Second Inspection District, comprising the coal producing counties of Bureau, Henry, Marshall, Mercer, Peoria, Rock Island, Stark and Woodford, for the year ending July 1, 1898.

The tabular part of this report gives the number of mines in the district, both shipping and local; the depth of coal below the surface in all shafts and slopes; the thickness of the seams, and the geological number thereof; the number of miners and other employes engaged in the mining industry of the district; the number of days each mine was in operation during the year; the the number of kegs of powder consumed; the number of accidents, fatal and non-fatal; the number of tons of lump and other grades of coal produced, and the disposition made of the same, whether shipped, sold to local consumers or consumed at the mine; the prices per ton paid for mining; the value of lump and other grades of coal per ton at the mine, and the aggregate value of the total product.

The following summary of coal produced, number of miners and other employes, accidents and ratios is presented for the year:

Number of shipping mines.....	48
Number of local mines.....	136
Total number of mines.....	184
Number of miners employed.....	5,336
Number of other employes.....	1,463
Total number of employes.....	6,799
Number employed above ground.....	613
Number employed under ground.....	6,186
Number of kegs of powder consumed.....	43,163
Tons of lump coal produced.....	2,080,702
Tons of other grades produced.....	470,408
Total product, tons.....	2,551,110
Tons of coal shipped.....	2,113,432
Tons of coal sold to local trade.....	350,468
Tons of coal consumed at the mines.....	87,210
Number of fatal accidents.....	10
Number of non-fatal accidents.....	60
Total number of personal injuries.....	70
Number of employes to each fatal accident.....	680
Number of employes to each non-fatal accident.....	113
Tons of coal produced to each fatal accident.....	255,111
Tons of coal produced to each non-fatal accident.....	42,514
Tons of coal produced to each employe.....	375

The coal production, by counties, in the Second district, with increase or decrease of output in each, for the years ending July 1, 1897, and 1898, is shown as follows:

COUNTY.	TOTAL OUTPUT OF ALL GRADES OF COAL—IN TONS.		Increase.	Decrease.
	1897.	1898.		
Bureau.....	1,145,312	865,892		279,420
Henry.....	119,497	159,049	39,552	
Marshall.....	339,820	286,365		53,455
Mercer.....	425,518	384,345		41,173
Peoria.....	504,309	640,193	135,884	
Rock Island.....	35,651	47,490	11,839	
Stark.....	19,472	21,936	2,464	
Woodford.....	148,829	145,840		2,989
Total.....	2,738,406	2,551,110	189,739	377,037
Decrease.....				377,037
Increase.....				189,739
Net decrease.....				187,298

The counties of Henry, Peoria, Rock Island and Stark show a gain of 189,739 tons, and the counties of Bureau, Marshall, Mercer and Woodford a loss of 377,037 tons, leaving a net loss for the district of 187,298 tons.

New and Abandoned Mines.—Two mines have been opened in the district, and three have been abandoned during the past year.

Shaft No. 2, operated by the Kewanee Coal Company, at Kewanee, Henry county, went into operation August 10, 1897, and a drift mine, owned by the Hayes Coal Company, of Muscatine Iowa, commenced operations, in a small way, in April, 1898. This latter mine is located on an arm of the Mississippi river, in Buffalo Prairie township, Rock Island county. A tippie has been built, and the coal will be loaded on barges and taken down the river to Muscatine, which will be the principal market. Such, at least, is the present intention of the company, but it is very doubtful whether this mine can be operated successfully; the coal seam is less than two feet thick, and the roof is a rotten black shale, requiring cross-bars every two or three feet, even in the entries. Added to this, the mine, owing to its isolated location, can not be operated during the winter months when the river is frozen over. Hence, it is quite safe to infer that the product of this mine will not materially increase the output of Rock Island county.

The three mines that have been abandoned were all operated by the Kewanee Coal Company, at Kewanee. Shaft No. 7, the old Lathrop mine, was worked out in July, 1897. Shaft No. 1 was worked out in April, 1898, and shaft No. 2, which went into operation in August, 1897, was abandoned in June, 1898. A combination of causes brought about this result. From the time the shaft was sunk, large numbers of "clay-slips," "horse-backs," and other irregularities for which seam No. 6 is noted were encountered, making the successful operation of the mine rather difficult. The management struggled along, however, against adverse conditions, until June, 1898, when the

miners in their service, about 100 in number, requested a change from the screened coal basis of paying to the gross-weight system, and stopped work until their demand should be complied with. The company could not comply with the demand of the miners, and promptly abandoned the mine.

Improvements.—In the matter of improvements, those made by the Spring Valley Coal Company at their No. 2 mine are by far more extensive and costly than any made during the year. Masonry and steel have been used quite liberally at the bottom of the shaft to make it safe and durable. A Capell ventilating fan, similar to that at the No. 1 mine, is in course of erection; this will secure excellent ventilation for this mine in the future.

An escapement shaft 102 feet deep has been sunk by Sholl Brothers at their No. 3 mine, located near Bartonville, Peoria county.

Newsam Brothers, have erected a 10-foot ventilating fan at their "Star" mine, in Peoria county, taking the place of the smaller fan in use previously.

Fires.—A very disastrous fire broke out in the engine and boiler room of Newsam Brothers' mine, located at Kingston, Peoria county, on the morning of September 26, 1897, by which four steam boilers were damaged, and the hauling engine, a small engine, the dynamos and a large stock of necessary material, usually found at a coal mine, were all practically destroyed. The scales, scale-house, tippie, etc., were saved. Horses were put to work on the slope to take the place of the hauling engine; hand mining took the place of the machines, and 24 hours after the fire the mine was in running order again, with a slightly decreased capacity. Everything destroyed by the fire has since been rebuilt and heavier and more substantial electrical and steam machinery erected.

The following is a detailed account of the fatal accidents that have taken place in the Second district during the year ending July 1, 1898.

August 7, 1897, Bruno Lambrecht, a pump-man, aged 32 years, married, leaves a widow and two children, was killed by falling from the top to the bottom of the pump-shaft, a distance of 52 feet, at John J. Pryce's mine, located near Coal Valley, in Rock Island county. Deceased, whose duty it was to attend to the boiler and pump, came to work about noon on the above date. Another man had been acting in his place during his absence. When Lambrecht came to the shaft he was informed that everything was working all right, but he insisted on going down the shaft, at the bottom of which the pump was located. He stepped on to the ladder, and had gone but a few feet when he slipped and fell to the bottom. He was dead when removed from the shaft.

October 14, 1897, Charles Preller, a miner, aged 53 years, married, leaves a widow and two children, had his leg broken by a fall of coal in the Roanoke mine, located at Roanoke, in Woodford county, and died from the effects thereof the following day. Deceased was at work in his room and in the act of taking down a piece of loose coal, when it came away suddenly and caught his leg, breaking it just above the ankle. There was nothing in this accident that would lead to the belief that it would terminate fatally; but he never regained consciousness after the drug was administered, as is usual in such cases, before reducing the fracture.

November 26, 1897, Peter Syrk, a miner, aged 42 years, married, leaves a widow and three children, was severely crushed by a fall of roof at the face of his working place in Minonk mine, located at Minonk, in Woodford county, and died from the injuries received two days after the accident. Deceased was at work in his working place, and knew that the over-hanging rock was in a dangerous condition. He was about to put up additional props to secure it, when it came down suddenly with the above result.

December 6, 1897, Michael Schmidt, a miner, aged 28 years, single, was severely crushed by a fall of roof at the face of his working place in the Minonk mine, located at Minonk, in Woodford county, and died from the injuries received in a hospital at Bloomington, January 17, 1898. At the time of the accident deceased was in the act of wedging down coal at the face of his room. When the coal fell it displaced a number of props and let down about 1,500 pounds of roof, part of which fell on deceased, crushing him severely. He died 42 days after the accident.

January 7, 1898, Edward Madrill, a laborer, employed above ground, aged 30 years, single, had his right arm terribly mangled by being caught in the ventilating fan at the Marquette mine, located at Marquette, Bureau county. Deceased was employed as a laborer, doing any odd jobs around the top-works of the mine. On the above date he went to clean and oil the bearings of the ventilating fan, which was running at a high rate of speed. By some mishap he got his arm inside of the fan casing, it was caught by the rapidly revolving blades and literally torn from his body. He was conveyed to a hospital at LaSalle, but died 12 hours after the accident.

January 10, 1898, Benjamin Smith, a miner, aged 39 years, married, leaves a widow and three children, was severely crushed and had his back broken by a fall of roof at the face of his working place in Wantling & Son's mine, located at Pottstown, in Peoria county. Deceased was in a sitting posture, cutting the right hand side of the brushing, when a mass of roof, weighing about 1,000 pounds, suddenly fell, striking Smith and injuring him as above described. He died from the injuries received January 27, 17 days after the accident.

March 30, 1898, John Rogers, trip-rider, aged 34 years, married, leaves a widow and three children, was severely crushed by being caught under an empty pit-car in the Wenona mine, located at Wenona, in Marshall county. Deceased was engaged as trip-rider; his duty was to accompany the trip on the engine plane from the shaft to the inside partings and out again. He was making what is termed a flying switch on the sixth north parting. He was riding in the first empty car, and had detached the "dog" or "preserver" from the trip, which was running rapidly. In throwing the rope from in front of the trip he leaned too far forward, causing the front car to tip up, and becoming uncoupled from the second car, it went clear over, upside down, with Rogers under it, bruising him internally. He died from hemorrhage two hours after the accident.

April 23, 1898, William Hutchins, a miner, aged 51 years, married, leaves a widow and three children, was severely burned by exploding loose powder in the Alden Coal Company's mine, at Wanlock, Mercer county. Deceased was

in the act of charging a drill hole with loose powder, contrary to law and to the rules of the company. He was down on his knees in front of the drill hole, and had a keg containing several pounds of powder by his side. He was throwing loose powder into the drill hole and ramming it back with an iron scraper. In doing so a spark was generated by the scraper striking a small ledge of sulphur in the drill hole, which exploded the powder in the hole, and the flame therefrom exploded the powder in the keg, burning Hutchins as above described. He died seven hours after the accident.

May 12, 1898, James Knox, a miner, aged 65 years, married, leaves a widow, was killed instantly by a fall of coal at the face of his working place in shaft No. 1, operated by the Spring Valley Coal Company, at Spring Valley, Bureau county. Deceased was in the act of taking down a large fall of coal, and in removing the sprags the coal came down suddenly and caught him against a prop, crushing his breast and killing him instantly. The mass of coal that fell was about 24 feet long, and would weigh fully six tons.

June 30, 1898, James Salkeld, a miner, aged 31 years, married, leaves a widow and one child, was instantly killed by coal flying from a blast in shaft No. 2, operated by the Coal Valley Mining Company, at Sherrard, Mercer county. Deceased had fired one shot, and went back to the face to fire a second one. He lighted the match and left the face, but when only about twenty feet away from the shot it exploded, and large pieces of coal flying therefrom struck him on the head killing him instantly.

April 25, 1898, Patrick McQuade, a miner, a resident of Spring Valley, employed in the Marquette Coal Company's mine at Marquette, Bureau county, was cleaning up a fall of roof in an entry in the above mine when a small piece of rock fell, striking him on the top of the head and cutting it. The injury was seemingly very slight, and it was not expected that he would lose more than a few days' work thereby. Other complications, however, set in, and McQuade died May 2, eight days after the accident.

This death has not been tabulated as a fatal accident, because the attending physician certified that death resulted, not from the accident, but from endocarditis, or inflammation of the lining membrane of the heart.

Following are the tables of fatal and non-fatal accidents, their causes and the nature of the injuries sustained; also, the regular county schedules of the district.

Respectfully submitted,

THOMAS HUDSON,

State Inspector of Mines, Second District.

Galva, Ill.

Fatal Casualties—Second District, 1898.

Date.	Name.	Age.	Occupation.	Residence.	Married.	Widow.	Children.	Single.	Dependent.	Cause of Accident.
1897.										
Aug. 7	Bruno Lambrecht.....	32	Pumpman..	Coal Valley..	1	1	2	..	3	Falling down shaft..
Oct. 14	Charles Preller.....	53	Miner.....	Roanoke.....	1	1	2	..	3	Falling coal.....
Nov. 26	Peter Syrk.....	42	".....	Minonk.....	1	1	3	..	4	Falling roof.....
Dec. 6	Michael Schmidt.....	28	".....	".....	..	..	..	1	..	Falling roof.....
1898.										
Jan. 7	Edward Madrill.....	30	Laborer.....	Marquette.....	..	..	..	1	..	Fan on the surface...
Jan. 10	Benjamin Smith.....	39	Miner.....	Pottstown.....	1	1	3	..	4	Falling roof.....
Mar. 30	John Rogers.....	34	Trip rider..	Wenona.....	1	1	3	..	4	Falling under pit car
Apr. 23	William Hutchins.....	51	Miner.....	Wanlock.....	1	1	3	..	4	Exploding powder....
May 12	James Knox.....	65	".....	Spring Valley	1	1	..	..	1	Falling coal.....
June 30	James Salkeld.....	31	".....	Sherrard.....	1	1	1	..	2	Flying coal fr'm blast
	Totals.....				8	8	17	2	25	

Total fatal casualties, 10.

Recapitulation of Fatal Casualties—Second District, 1898.

Residence.	No.	Occupation.	No.	Nature of Casualty	No.	Colliery.	No.
Coal Valley...	1	Laborer.....	1	Empty pit car.....	1	Alden Coal Co.....	1
Marquette....	1	Miners.....	7	Explod. loose p'dr.	1	Chicago Minonk C. C.	2
Minonk.....	2	Pumpman.....	1	Falling coal.....	2	Coal Val. M. Co. No. 2	1
Pottstown....	1	Trip rider.....	1	Falling down shaft	1	Marquette Coal Co...	1
Roanoke.....	1			Falling roof.....	3	Pryces Mine.....	1
Sherrard.....	1			Premature blast...	1	Roanoke Mining Co.	1
Spring Valley	1			Ventilating fan....	1	Spring Valley No. 1..	1
Wanlock.....	1					Wantling & Son.....	1
Wenona.....	1						
Totals.....	10		10		10		10

Non-Fatal Casualties—Second District—1898.

Date.	Name.	Age.	Residence.	Married.	Single.	Children.	Dependent.	Character of Injury.	Time lost—days.
1897.									
July 6	Peter Linn	40	Cable	1	...	4	5	Collar bone broken	40
Sept. 8	Melvin Johnson	38	Elmwood	1	...	...	1	Leg broken	200
Oct. 14	Frank Baubles	25	Toluca	...	1	...	...	Leg broken	60
" 21	Jos. Cumincavich	31	Minonk	...	1	...	...	Arm broken	40
" 30	John Brezenski	25	...	...	1	...	...	Leg broken	120
" 30	Claus Dude	53	Sherrard	1	...	4	5	Body bruised	20
Nov. 9	George Hellens	40	Minonk	1	...	1	2	Leg broken	125
" 13	P. W. Morris	45	Roanoke	1	...	5	6	Finger broken	21
" 13	R. W. Ratcliffe	55	...	1	...	2	3	Hand crushed	60
" 17	Chas. Evans	15	Kingston	...	1	...	...	Head bruised	24
" 18	T. Andenspring	50	Minonk	1	...	6	7	Leg broken	135
" 22	Anton Brusk	45	...	1	...	4	5	Shoulder dislocated	30
" 22	Geo. Bahr, Jr.	19	Wenona	...	1	...	...	Body bruised	45
" 26	John Molifski	42	Minonk	1	...	2	3	Body bruised	40
" 29	Joe Christetto	30	Marquette	...	1	...	...	Jaw fractured	40
" 29	Chas. Bendris	37	...	...	1	...	...	Arm cut	35
Dec. 1	Frank Grodrims	25	Spr'g Valley	...	1	...	...	Leg bruised	20
" 4	Joseph Nicol	40	...	1	...	3	4	Leg bruised	25
1898.									
Jan. 4	William Black	30	Wanlock	1	...	2	3	Leg broken	95
" 7	Geo. Griffith	29	DePue	1	...	3	4	Collar bone broken	50
" 8	Fred Carlson	36	Kewanee	1	...	4	5	Back bruised	30
" 11	L. Linholm	40	...	1	...	4	5	Leg broken	80
" 12	John Boerta	48	Spr'g Valley	1	...	3	4	Foot bruised	30
" 13	Thomas Fabric	45	Minonk	1	...	5	6	Hand crushed	60
" 28	Peter Sabana	27	Spr'g Valley	...	1	...	...	Body bruised	20
" 30	D. Philletts	30	...	1	...	2	3	Toes broken	20
Feb. 3	John Williams	45	Coal Valley	1	...	6	7	Back bruised	50
" 7	Joseph Perona	27	Spr'g Valley	...	1	...	...	Body bruised	20
" 8	A. Mesach	42	Toluca	1	...	2	3	Foot bruised	20
" 20	John Samson	39	Minonk	1	...	4	5	Back bruised	30
Mar. 2	Axel Foxburg	27	Kewanee	...	1	...	...	Ankle brok'n and body bruised	40
" 2	A. F. Carlson	44	...	1	...	3	4	Ribs broken and body bruised	48
" 3	H. Kohlmorgan	43	Sherrard	1	...	2	3	Leg broken	90
" 4	Thos. Keenan	22	Seatonville	...	1	...	...	Back bruised	15
" 5	Thos. Osborn	42	Spr'g Valley	1	...	...	1	Leg broken	80
" 10	Frank Ismau	22	...	...	1	...	...	Foot bruised	20
" 10	S. McPherson	15	...	...	1	...	...	Foot bruised	12
" 14	James Miller	54	...	1	...	5	5	Hand crushed	40
" 17	John Galvetti	20	...	...	1	...	...	Arm broken	45
" 21	John Clinton	28	...	...	1	...	...	Body bruised	80
" 22	Joe Yanklomis	30	...	...	1	...	...	Collar bone broken	80
" 25	John Wood	30	...	...	1	...	...	Arm broken	60
" 30	Geo. Griffith	29	DePue	1	...	3	4	Collar bone rebroken	42
" 31	Julio Moreskini	33	Toluca	...	1	...	...	Arm broken	85
April 4	Joseph McKinney	19	Elmwood	...	1	...	...	Leg broken	63
" 18	Adolph Anderson	53	Cable	1	...	...	1	Foot bruised	20
" 19	James Craig, Jr.	19	Marquette	...	1	...	...	Finger crushed	34
" 19	Barto Bellegank	35	...	1	...	...	1	Leg broken (small bone)	30
" 26	John Roganiski	18	Spr'g Valley	...	1	...	...	Leg bruised	20
May 15	Jos. Schivinski	28	...	1	...	...	1	Body bruised	50
" 17	John Barto	24	...	1	...	...	...	Body bruised	40
" 17	Louis Hody	35	...	1	...	3	4	Body bruised	35
" 17	D. Kenneck	38	Toluca	...	1	3	4	Hand severely crushed	90
" 20	Nels P. Schultz	40	Spr'g Valley	1	...	2	3	Ankle dislocated	28
" 21	John Saunders	45	...	...	1	...	...	Ankle bruised	30
" 23	Wm. McAdams	19	...	...	1	...	...	Body severely bruised	*
" 26	Joseph Backer	18	Hollis	...	1	...	...	Hand bruised	24
June 10	Hugh Dewyer	45	Marquette	...	1	...	...	Ankle bruised	24
" 15	Baptiste Matiado	33	Spr'g Valley	...	1	...	...	Arm broken	*
" 21	Mike Cisco	29	...	1	...	3	4	Body bruised	*
	Totals			32	28	90	121		

* Not recovered July 1, 1898.

Total men injured
 Not recovered July 1, 1898.....
 Number recovered.....
 Total time lost.....
 Average time lost per man recovered.....

50
 2
 57
 2,810 days.
 49.3

Recapitulation of Non-Fatal Casualties—Second District—1898.

Residence.	No.	Occupation.	No.	Cause of Accident.	No.	Colliery.	No.
Cable	2	Cagers	2	Cage	1	Alden Coal Co.	1
Coal Valley...	1	Drivers	7	Coal fall'g d'n sh'ft	3	C. W. & V. Coal Co..	1
DePue	2	Miners	49	Falli'g coal in mine	30	Coal V. M. Co., Cable	2
Elmwood	2	Mine manager	1	Falli'g rock in mine	14	Coal V. M. Co., Sh'rra'd	2
Hollis	1	Roadman	1	Fly'g coal from sh't	3	Devlin Coal Co.	4
Kewanee	4			Pit cars	9	Elmwood Coal Co.	2
Kingston	1					German Coop. C. Co.	1
Marquette	5					Kewanee Coal Co.	4
Minonk	8					Kingston Coal Co.	1
Roanoke	2					Marquette Coal Co.	7
Seatonville	1					Minonk Coal Co.	8
Sherrard	2					Pryce, John	1
Spring Valley	23					Roanoke Coal Co.	2
Toluca	4					Spring Valley C. Co.	23
Winlock	1					Wenona Coal Co.	1
Wenona	1						
Totals	60		60		60		60

Table showing the Nature of Injuries, Number of Persons Injured, Dependents, Time Lost, with Averages and Percentages, Second District.

NATURE OF INJURY.	Number.	Married.	Single.	Dependents.	TIME LOST.		Per cent of injuries.
					Total days.	Average days.	
Ankle broken.....	1		1		40	40	1.66
Ankles bruised.....	2		2		54	27	3.31
Ankle dislocated.....	1	1		3	28	28	1.66
Arms broken.....	5		5		230	46	8.34
Arm bruised.....	1		1		35	35	1.66
Backs injured.....	4	3	1	17	125	31.3	6.67
Bodies injured.....	11	5	6	17	350	31.8	18.34
Collarbones broken.....	4	3	1	13	212	53	6.67
Feet injured.....	5	3	2	8	102	20.4	8.34
Finger broken.....	1	1		6	21	21	1.67
Finger crushed.....	1		1		34	34	1.67
Hands injured.....	5	4	1	18	274	54.8	8.34
Heads injured.....	1		1		24	24	1.66
Jaw fractured.....	1		1		40	40	1.66
Legs broken.....	11	8	3	23	1,078	98	18.34
Legs bruised.....	3	1	2	4	65	21.7	5
Ribs broken.....	1	1		4	48	48	1.66
Shoulder dislocated.....	1	1		5	30	30	1.66
Toes broken.....	1	1		3	20	20	1.66
Total, averages and percentages.....	60	32	28	121	2,810	49.3	100.00

Bureau County—Second District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades
1	Spring V'y C. C. No. 1	Spring Valley	345	3.6	2	Sh.	S.	M.	197,042	157,634	39,408
2	" " No. 2	"	342	3.6	2	"	"	"	127,633	102,106	25,527
3	" " No. 3	"	481	3.6	2	"	"	"	171,029	136,823	34,206
4	Whiteb. F. C. Sh. "B"	Ladd	465	3.6	2	"	"	"	87,840	70,975	16,865
5	Marquette Coal Co.	Marquette	302	3.6	2	"	"	"	134,941	117,923	17,018
6	Chi. Wil. & Ver. C. Co	Seatonville	410	3.6	2	"	"	"	113,035	93,738	19,297
7	Sheffield Mining Co.	Sheffield	45	4.6	6	Sl.	Ho.	"	17,298	17,298	
8	Z. E. Williamson	"	80	4.6	6	"	"	"	3,282	3,282	
9	John Duncan	"	22	4.6	6	Sh.	"	"	907	907	
10	Peter Duncan	"	40	4.6	6	Sl.	"	"	547	547	
11	Paul Bros.	"	40	4.6	6	Sh.	"	"	480	480	
12	William Smith & Son	Princeton	117	4.6	6	"	"	B.	3,178	3,178	
13	A. W. Walton	"	150	4.6	6	"	"	"	3,000	3,000	
14	George Heathecock	"	200	4.6	6	"	"	"	2,371	2,371	
15	William Brandt	Mineral	15	4.6	6	"	"	"	1,538	1,538	
16	Tucker & Fall	"	20	4.6	6	"	"	M.	1,171	1,171	
17	Silas Riley	Neponset	64	4	6	"	"	"	600	600	
Totals									865,892	713,571	152,321
Averages											

Whole number of openings reported in 1897, 18.

Number of mines exhausted or abandoned during the year. 1.

Whole number of openings reported for 1898, 17.

Bureau County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.				WAGES.			Days of active operation.	Kegs of powder used.	ACCI- DEN'S		Capacity of mine- tons.
	Av. value of lump per ton at the mine.	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly.					
							For hand- mining.	For machine- mining.						
1	\$1 15	\$191,919	525	69	22	616	\$0 63	.....	S. M.	154	.....	1	11	450,000
2	1 15	124,314	400	68	37	505	63	.....	..	117	.....	..	9	360,000
3	1 15	166,582	525	67	36	628	63	.....	..	154	.....	..	3	350,000
4	1 16	90,594	263	62	30	355	63	.....	..	95	15	..	..	300,000
5	1 10	133,969	244	57	90	361	63	.....	..	168	12	1	7	260,000
6	1 03	99,830	280	40	25	345	63	.....	..	124	.....	..	1	225,000
7	1 75	30,271	40	6	4	50	87.5	.....	M.	300	12	..	..	20,000
8	1 75	5,743	3	.....	2	10	75	.....	S. M.	140	25	..	..	8,000
9	1 50	1,360	3	.....	.....	3	75	.....	W.	200	.....	..	..	1,000
10	1 75	957	3	.....	1	4	75	.....	..	150	.....	..	..	500
11	1 50	720	3	.....	1	4	75	.....	..	80	12	..	..	2,000
12	1 75	5,561	6	.....	1	7	1 00	.....	S. M.	200	87	..	..	8,000
13	1 75	5,250	6	.....	1	7	1 00	.....	..	175	100	..	..	12,000
14	1 75	4,149	6	.....	1	7	80	.....	M.	198	81	..	..	4,000
15	1 50	2,307	3	.....	1	4	75	.....	W.	200	.....	..	..	5,000
16	1 50	1,756	4	.....	1	5	75	.....	S. M.	140	.....	..	..	5,000
17	1 50	900	3	.....	1	4	87.5	.....	W.	120	7	..	..	800
.....	.....	\$866,182	2,322	369	224	2,915	.....	.....	.....	.....	351	2	31	2,011,300
.....	\$1 15.4	.....	.....	.....	.....	.....	\$0 63.9	.....	.....	160	.....	.....	.....	.....

Henry County—Second District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades
1	Kewanee C. Co. No. 1.	Kewanee.	80	4	6	Sh.	S.	M.	27,404	24,841	2,563
2	Kewanee C. Co. No. 2.	..	108	4	6	..	..	..	28,390	24,568	3,822
3	Philip Henry	..	72	4	6	..	..	..	6,800	6,400	400
4	Bernard Kirley	..	68	4	6	..	..	..	5,436	5,036	400
5	Matthew Atkinson	..	..	4	6	D.	Hd	..	3,915	3,715	200
6	Bates Bros.	..	68	4	6	Sh.	Ho.	..	2,230	2,230	..
7	W. H. Lyle	..	67	4	6	..	..	..	1,600	1,400	200
8	Martin Bros	..	..	4	6	D.	Hd	..	820	820	..
9	Garland & Dixon.	..	..	4	6	Sh.	Ho.	..	1,100	1,100	..
10	Groy & Son.	..	66	4	6	..	..	..	800	800	..
11	Ralph Todd.	..	40	4	6	..	..	..	600	600	..
12	R. Kempin.	..	35	4	6	Sl.	..	..	480	480	..
13	G. T. Shultz.	..	32	4	6	..	..	..	400	400	..
14	Joseph Pyle.	..	30	4	6	..	..	..	300	300	..
15	E. P. Lincoln	..	20	4	6	..	..	..	300	300	..
16	P. Malone & Son.	..	25	4	6	..	..	..	280	280	..
17	Thomas Carter & Son	..	25	4	6	..	..	..	275	275	..
18	Herdien C. Co. No. 14	Galva	60	4	6	Sh.	S.	..	24,934	23,750	1,184
19	Herdien C. Co. No. 12	..	68	4	6	..	..	..	7,100	6,700	400
20	James H. Murray	..	57	4	6	..	..	..	7,034	6,634	400
21	McKane & Reed.	..	25	3.6	6	..	..	..	848	648	200
22	John McCaffrey	Davenport, Ia.	45	4.4	1	Sl.	Ho.	B.	25,000	19,000	6,000
23	James Waine	Atkinson	30	3	3	..	..	M.	2,200	2,200	..
24	D. O. Loy	..	40	3	3	Sh.	S.	..	2,026	2,026	..
25	James Kay	..	30	3	3	..	..	..	1,691	1,691	..
26	Richard Marley	..	20	3	3	Sl.	Ho.	..	1,000	1,000	..
27	James Fairlie.	Cambridge	130	2.8	3	Sh.	S.	B.	3,546	2,726	820
28	John Summerson	Coal Valley	4	1	1	D.	Hd	..	1,400	1,400	..
29	James Kershaw	Briar Bluff	4	1	1	..	..	M.	1,080	1,080	..
30	Timothy Downing	..	3	1	1	..	..	..	60	60	..
Totals									159,049	142,460	16,589
Averages											

Whole number of openings reported in 1897, 29.

Number of new mines or places opened during the year 7.

Number of mines exhausted or abandoned during the year, 6.

Whole number of openings reported for 1898, 30.

Henry County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.				WAGES.		Paid monthly, semi-monthly or weekly	Days of active operation.	Kegs of powder used.	ACCF-DEN'S		Capacity of mine—tons.
	Average value of lump per ton at the mine	Aggregate value of total product.	No. of miners employed.	Other employees underground.	All employees above ground.	Total employees.	Price paid per screened ton.					Fatal.	Non-fatal.	
1	\$1 25	\$32,332	50	5	5	60	\$0 75	.....	S-M.	240	.....	.....	.....	*
2	1 25	32,621	90	8	8	106	75	.....	.....	180	.....	.....	4	*
3	1 50	9,600	16	1	1	18	87.5	.....	.....	275	.....	.....	.....	10,000
4	1 50	7,554	13	1	2	16	87.5	.....	.....	233	.....	.....	.....	5,000
5	1 50	5,572	8	1	1	10	87.5	.....	W.	250	.....	.....	.....	10,000
6	1 50	3,345	6	.....	1	7	87.5	.....	.....	160	.....	.....	.....	10,000
7	1 50	2,100	4	.....	1	5	87.5	.....	.....	200	.....	.....	.....	10,000
8	1 50	1,230	3	.....	.....	3	87.5	.....	.....	150	.....	.....	.....	6,000
9	1 50	1,650	4	.....	1	5	87.5	.....	.....	150	.....	.....	.....	8,000
10	1 50	1,200	3	.....	1	4	87.5	.....	.....	150	.....	.....	.....	6,000
11	1 50	900	2	.....	.....	2	87.5	.....	.....	100	.....	.....	.....	4,000
12	1 50	720	2	.....	.....	2	87.5	.....	.....	120	.....	.....	.....	4,000
13	1 25	500	2	.....	.....	2	87.5	.....	.....	140	.....	.....	.....	4,000
14	1 25	375	2	.....	.....	2	75	.....	.....	150	.....	.....	.....	4,000
15	1 50	450	2	.....	.....	2	87.5	.....	.....	100	.....	.....	.....	4,000
16	1 50	420	1	.....	.....	1	87.5	.....	.....	120	.....	.....	.....	3,000
17	1 50	412	2	.....	.....	2	87.5	.....	.....	80	.....	.....	.....	3,000
18	1 25	30,279	50	1	4	55	80	.....	M.	220	.....	.....	.....	40,000
19	1 55	10,385	18	1	2	21	80	.....	.....	250	.....	.....	.....	12,000
20	1 60	10,614	17	1	1	19	80	.....	S-M.	300	.....	.....	.....	15,000
21	1 50	972	3	.....	1	4	80	.....	.....	160	.....	.....	.....	5,000
22	1 50	31,500	60	6	8	74	50	.....	.....	140	1,350	.....	.....	48,000
23	2 00	4,400	7	.....	1	8	1 25	.....	.....	250	.....	.....	.....	6,000
24	2 00	4,052	5	.....	1	6	1 25	.....	.....	200	.....	.....	.....	6,000
25	2 00	3,382	4	.....	1	5	1 25	.....	.....	200	.....	.....	.....	6,000
26	2 00	2,000	4	.....	.....	4	1 25	.....	.....	200	.....	.....	.....	6,000
27	2 00	5,862	7	1	1	9	1 25	.....	.....	200	155	.....	.....	10,000
28	1 00	1,400	5	.....	.....	5	75	.....	W.	110	65	.....	.....	4,000
29	1 50	1,620	3	.....	.....	3	75	.....	.....	150	27	.....	.....	1,000
30	1 50	90	1	.....	.....	1	75	.....	.....	30	.....	.....	.....	100
.....	.....	\$207,537	394	26	41	461	.....	.....	.....	.....	1,597	.....	4	245,100
.....	\$1 40.7	.....	.....	.....	.....	.....	†	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	\$0 82.8	.....	.....	173	.....	.....	.....	.....

* Worked out and abandoned.

† Per screened ton.

Marshall County—Second District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.							OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.		Total tons produced.	Tons of lump.	Tons of other grades.
1	Devlin C. Co. No. 1, 3d V	Toluea.....	512	2 8	3	Sh.	S.	M.		207,987	162,759	45,228
2	No. 1, 1st, 2d V	.....	375	4	3	..	..	B.		10,000	7,500	2,500
3	Wenona Coal Co.....	Wenona.....	555	2 8	3	..	..	M.		46,967	35,800	11,167
4	Marquette Coal Co.....	Sparland.....	164	2 6	3	..	..	*		17,463	16,031	1,432
5	Robert Ingram.....	.....	3.10	7	7	D.	Hd	..		740	740	.....
6	A. B. Cumming.....	..	3.10	7	7	..	..	..		360	360	.....
7	L. Nighswonger.....	..	3.10	7	7	..	..	..		300	300	.....
8	Bernard Lanning.....	..	3.10	7	7	..	..	..		208	208	.....
9	George Chrisman.....	..	3.10	7	7	..	..	..		168	168	.....
10	James Medearis.....	Henry.....	4	7	7	..	..	..		700	700	.....
11	Joseph Caley.....	.....	3.8	6	..	..	..	..		492	492	.....
12	William Horrocks.....	..	3.10	7	7	..	..	..		400	400	.....
13	Frank Daniels.....	..	4	7	7	..	..	..		340	340	.....
14	William Bough.....	..	4	7	7	..	..	..		240	240	.....
Totals										286,365	226,038	60,327
Averages.....												

Whole number of openings reported in 1897, 14.

Number of new mines or places opened during the year, 1.

Number of mines exhausted or abandoned during the year, 1.

Whole number of openings reported for 1898, 14.

* Both.

Marshall County, 1898—Concluded.

Number.	VALUES.		EMPLOYEES.				WAGES.			Days of active operation.	ACCI- DEN'S		Capacity of mine— tons.	
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly		Kegs of powder used.	Fatal.		Non-fatal.
							For hand- mining.	For machine. mining.						
1	\$1 25	\$226,062	372	47	56	475	\$0 63	.....	S-M.	229	19	..	4	300,000
2	1 15	9,875	79	10	.....	89	47	.....	..	229	1,200	..	.....	10,000
3	1 26	50,691	150	30	20	200	63	.....	..	134	.....	1	1	250,000
4	1 10	17,920	46	5	5	56	63	.....	..	264	.....	.....	.....	90,000
5	1 25	925	2	.....	.....	2	75	.....	..	150	40	.....	.....	1,000
6	1 25	450	2	.....	.....	2	75	.....	..	100	12	.....	.....	500
7	1 25	375	2	.....	.....	2	75	.....	..	100	10	.....	.....	500
8	1 25	260	1	.....	.....	1	75	.....	..	140	.....	.....	.....	300
9	1 25	210	1	.....	.....	1	75	.....	..	120	4	.....	.....	200
10	1 25	875	2	.....	.....	2	75	.....	..	170	6	.....	.....	1,000
11	1 50	738	2	.....	.....	2	75	.....	..	180	.....	.....	.....	500
12	1 25	500	2	.....	.....	2	75	.....	..	140	8	.....	.....	500
13	1 25	425	1	.....	.....	1	75	.....	..	150	.....	.....	.....	500
14	1 25	290	1	.....	.....	1	75	.....	..	125	4	.....	.....	500
.....	.....	\$309,596	664	92	81	837	.....	.....	.....	.....	1,303	1	5	655,500
.....	\$1 24	.....	.....	.....	.....	.....	\$0 62.6	.....	.....	160	.....	.....	.....	.....

Mercer County—Second District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.							OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades.	
1	Coal V. M. Co. No. 1.	Cable.....	60	4	1	Sh.	S.	B.	73,273	49,118	24,155	
2	No. 2.	Sherrard.....	203	4	1	"	"	"	103,049	65,412	37,637	
3	Camp Creek Coal Co.	Cable.....	70	3.8	1	"	"	"	21,520	16,000	5,520	
4	B. B. Peterson.....	"	65	4	1	"	"	"	2,328	2,028	300	
5	Lilliman Bros.....	"	37	3	1	"	Ho.	"	1,600	1,600	.....
6	Alden Coal Co.....	Wanlock.....	135	4.6	1	"	S.	"	89,935	56,693	33,242	
7	Empire Coal Co.....	Gilchrist.....	100	4	1	"	"	"	73,025	53,593	19,432	
8	W. P. Williams.....	Laoc.....	60	4	1	"	Ho.	"	4,100	4,100	.....
9	G. W. Martin.....	"	40	4	1	"	"	"	1,800	1,800	.....
10	John Dunn.....	"	45	4	1	"	"	"	1,600	1,600	.....
11	T. Docherty & Sons..	Preemption.....	60	4	1	"	"	"	2,600	2,600	.....
12	William Penman.....	"	48	4	1	"	"	"	1,200	1,200	.....
13	Edward Boden.....	"	58	4	1	"	"	"	2,300	2,300	.....
14	Griffin Clay Mfg. Co..	Griffin.....	35	2.6	1	"	"	M.	2,235	2,235	.....
15	Andrew Peterson.....	"	2.6	1	D.	Hd	"	"	600	600	.....
16	William Barr.....	Viola.....	30	4	1	Sl.	Ho.	"	2,700	2,700	.....
17	Charles Knuteson.....	New Windsor.	2.6	1	D.	Hd	"	"	480	480	.....
Totals.....									384,345	264,059	130,286	
Averages.....												

Whole number of openings reported in 1897, 16.

Number of new mines or places opened during the year, 3.

Number of mines exhausted or abandoned during the year, 2.

Whole number of openings reported for 1898, 17.

Mercer County, 1898—Concluded.

Number.	VALUES.		EMPLOYEES.			WAGES.			Days of active operation.	Kegs of powder used.	ACCI- D'NTS		Capacity of mine- tons.	
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.				Paid monthly, semi- monthly or weekly			
							For hand mining.	For machine mining.						
1	\$1 50	894,691	96	60	20	176	\$0 48.5	.....	M.	134	2 338	.....	2	100,000
2	1 50	130,862	119	64	24	207	48.5	.....	..	121	3,512	1	2	400,000
3	1 15	20,884	25	6	5	36	51	.....	..	175	1,000	.....	.....	25,000
4	1 40	2,839	4	.....	1	5	75	.....	..	226	125	.....	.....	3,000
5	1 50	2,400	4	.....	1	5	75	.....	..	140	95	.....	.....	4,000
6	1 08	74,525	125	31	12	168	45	.....	S-M.	200	4,736	1	1	140,000
7	1 08	66,236	112	40	15	167	45	.....	..	182	3,372	.....	.....	125,200
8	1 25	5,125	7	.....	1	8	75	.....	..	225	255	.....	.....	10,000
9	1 25	2,250	3	.....	1	4	75	.....	..	170	92	.....	.....	8,000
10	1 25	2,000	3	.....	1	4	75	.....	..	150	85	.....	.....	2,000
11	1 25	3,250	4	.....	1	5	75	.....	..	220	160	.....	.....	12,000
12	1 25	1,500	3	.....	1	4	75	.....	..	140	75	.....	.....	10,000
13	1 25	2,875	4	.....	1	5	75	.....	..	200	95	.....	.....	12,000
14	1 75	3,911	6	.....	1	7	1 00	.....	M.	260	.....	.....	.....	5,000
15	1 75	1,050	4	.....	.....	4	1 00	.....	S-M.	120	.....	.....	.....	1,000
16	1 25	3,375	5	.....	1	6	75	.....	..	150	21	.....	.....	10,000
17	1 75	840	3	.....	.....	3	1 00	.....	..	100	.....	.....	.....	500
.....		\$418,613	527	201	86	814	.....	.....	.....	.....	15,961	2	5	867,700
	\$1 29	.....	.....	.....	.....	.....	\$0 49	.....	.....	171	.....	.....	.....	.....

Peoria County—Second District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades
1	Newsam Bros., Kings-ton.....	Peoria	180	4.4	5	Sl. S.	M.		77,119	52,001	25,118
2	Newsam Bros. (lessee) Star	"	130	4.2	5	Sh. "	B.		33,579	22,386	11,193
3	Newsam Bros. (lessee) Hanna City	"	250	4.2	5	" "	"		25,050	17,666	7,384
4	Sholl Bros., No. 1....	"	100	4.6	5	Sl. "	"		35,750	33,750	2,000
5	No. 3.....	"	80	4.6	5	Sh. "	"		54,588	38,105	16,483
6	Wolschlag Coöps. C. Co.	"	150	4.6	5	Sl. "	"		61,704	61,204	500
7	Peter Grant, Jr.....	"	105	4.2	5	Sh. "	"		16,000	13,000	3,000
8	Royster & Zeigler....	"	75	4.2	5	Sh. "	"		12,168	8,736	3,432
9	Vicary Bros.....	"		4.4	5	D. Ho.	"		11,556	11,556	200
10	F. P. Schmidt & Sons	"		4.2	5	" "	"		5,098	4,098	1,000
11	Frederick Mohn	"	130	4.2	5	Sh. "	"		2,480	2,480	
12	Martin & Lane.....	"		4.2	5	D. Hd.	"		2,200	2,200	
13	Richard Cody.....	"	55	4.2	5	Sh. Ho.	"		2,160	2,160	
14	Schneider & Ennis...	"		4.2	5	D. Hd.	"		1,758	1,768	
15	Daniel Birdois.....	"		4.2	5	" "	"		1,710	1,710	
16	John Birdois.....	"		4.2	5	" "	"		1,450	1,450	
17	James Lane.....	"		4.2	5	" "	"		1,400	1,400	
18	Joos & Rumpel.....	"		4.2	5	" "	"		1,052	1,052	
19	Edward Brost	"		4.2	5	Ho.	"		920	920	
20	Cook Bros.....	"		4.2	5	Hd.	"		776	776	
21	John J. Saupé	"		4.2	5	" "	"		614	614	
22	Burr Pitcher.....	"		4.2	5	" "	"		600	600	
23	James Sargent	"		4.2	5	" "	"		384	384	
24	Collier Coöps. Coal Co.	Bartonville	180	4.4	5	Sl. S.	"		33,843	33,843	
25	Bartonville Coal Co.	"	100	4.4	5	" "	"		12,594	10,594	2,000
26	Joseph Sholl & Sons.	"	120	4.4	5	" "	"		7,410	6,700	710
27	Ball Coal Co.....	"	96	4.4	5	Sh. "	"		9,659	9,409	250
28	Wolland Bros.....	"		4.2	5	D. Ho.	"		6,880	6,680	200
29	George Kellar & Sons	"	65	4.4	5	Sh. "	"		3,502	3,002	500
30	White Coal Co.....	"		4.2	5	D. "	"		3,200	3,200	
31	Brown & White	"		4.2	5	Hd.	"		1,000	1,000	
32	Lot Hurst.....	"		4.4	5	" "	"		800	800	
33	Elmwood Coal Co.	Elmwood.....	215	2.8	2	Sh. S.	M.		63,874	54,924	8,950
34	Reed City Coal Co.	Wolcott.....	90	4.8	3	Sl. "	"		47,107	41,609	5,498
35	Wantling & Son.....	Pottstown	112	2.6	2	Sh. M.	"		31,533	30,933	600
36	Harry Vicary.....	"		4.3	5	D. Hd.	B.		840	840	
37	Alfred Jones.....	"		4.3	5	" "	"		400	400	
38	How'th & Taylor Bros	Edwards.....		4.2	5	Ho.	"		13,550	12,994	556
39	C. B. Kramm	"		4.2	5	" "	"		4,040	4,040	
40	Mike Cusack.....	"		4.2	5	" "	"		2,760	2,760	
41	German Coöps. C. Co.	Orchard Min's	100	4.6	5	Sl. S.	"		10,807	8,736	2,071
42	Lowery Estate.....	"	80	4.6	5	Ho.	"		2,223	2,163	60
43	"	"	160	2.6	2	Sh. S.	M.		1,650	1,350	300
44	Smith Miller.....	"		4.6	5	D. Hd.	B.		1,920	1,920	
45	Potter Bros. (lessees).	"		4.6	5	" "	"		1,500	1,500	
46	J. Morrison.....	"		4.6	5	" "	"		520	520	
47	Frank Jones.....	"		4.6	5	" "	"		450	450	
48	David B. Roberts....	"		4.6	5	" "	"		350	350	
49	W. E. Foley.....	Mapleton.....	80	4.6	5	Sl. S.	"		12,565	8,565	4,000
50	Thomas Jones.....	"		4.6	5	D. Hd.	"		300	300	
51	Jefford Bros.....	Kingston Mi's		4.6	5	Ho.	"		2,369	2,369	
52	(lessees)	"		4.6	5	" "	"		646	646	
53	Nathan Shaw.....	Kramm.....		4.2	5	" "	"		7,600	7,600	
54	Joseph Crew.....	Chilliothe.....	30	3.6	1	Sh. "	"		1,000	1,000	
55	John Jurdon.....	Trivoli.....	40	4.3	6	" "	M.		680	680	
56	Robert Taylor.....	Princeville.....	20	4.6	6	" "	"		675	675	
57	Martin Armentrout....	Duncan.....	30	4.6	6	" "	"		460	460	
58	Charles Berry.....	Monica.....	35	4.6	6	" "	"		370	370	

* Both.

Peoria County, 1898—Continued.

Number.	VALUES.		EMPLOYEES.			WAGES.			Days of active operation.	Kegs of powder used.	ACCI- DENTS		Capacity of mine— tons.	
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.				Paid monthly, semi- monthly or weekly			
							For hand- mining.	For machine- mining.						
1	\$1 00	\$60,792	90	18	9	117	.....	\$0 27	S-M.	152	750	..	1	140,850
2	1 00	26,303	4a	7	6	53	\$0 45	.....	..	138	1,500	....		78,250
3	1 00	20,250	30	6	3	39	45	.....	..	124	986	....		68,540
4	87.5	30,131	35	5	4	44	45	.....	..	173	1,453	....		94,000
5	1 00	43,049	53	5	4	62	45	.....	..	180	2,152	....		187,200
6	75	46,038	39	4	6	49	45	.....	..	265	3,160	....		85,000
7	11,500	11,500	25	4	3	32	45	.....	S-M.	180	800	....		60,000
8	85	7,940	20	3	3	26	45	.....	..	180	437	....		60,000
9	1 00	11,356	18	2	2	22	60	.....	W.	235	615	....		30,000
10	1 00	4,348	12	1	2	14	69	.....	..	241	361	....		30,000
11	1 00	2,430	4	1	1	5	69	.....	..	220	114	....		15,000
12	1 00	2,200	3	1	3	3	69	.....	..	170	120	....		6,000
13	1 00	2,160	3	1	1	4	69	.....	..	210	130	....		8,000
14	1 00	1,758	3	1	3	3	69	.....	..	160	86	....		5,000
15	1 00	1,710	3	1	3	3	69	.....	..	120	80	....		5,000
16	1 00	1,450	2	1	2	2	69	.....	..	150	72	....		5,000
17	1 00	1,400	2	1	2	2	69	.....	..	120	70	....		5,000
18	1 00	1,052	2	1	2	2	69	.....	..	120	70	....		5,000
19	1 00	920	2	1	2	2	69	.....	..	100	60	....		4,000
20	1 00	776	2	1	2	2	69	.....	..	120	45	....		4,000
21	1 00	614	2	1	2	2	69	.....	..	140	38	....		4,000
22	1 00	600	2	1	2	2	69	.....	..	150	30	....		4,000
23	1 00	384	2	1	2	2	69	.....	..	100	25	....		500
24	71	24,028	26	4	4	34	45	.....	M.	238	1,525	....		45,000
25	1 00	11,094	14	1	2	17	63	.....	..	230	700	....		35,000
26	90	6,243	9	2	2	13	45	.....	S-M.	200	400	....		25,000
27	85	9,001	9	1	1	10	45	.....	M.	250	490	....		25,000
28	1 00	6,730	7	1	1	9	63	.....	..	250	304	....		8,000
29	1 00	3,127	6	1	1	7	69	.....	W.	160	175	....		10,000
30	1 00	3,200	4	1	1	4	69	.....	..	225	160	....		8,000
31	1 00	1,000	2	1	2	2	69	.....	..	240	50	....		2,000
32	1 00	800	2	1	2	2	69	.....	..	160	40	....		500
33	1 25	71,340	110	16	14	140	63	.....	S-M.	292	.....	2		125,200
34	1 00	34,386	55	8	7	70	45	27	..	199	1,572	....		90,000
35	1 10	34,116	65	10	5	80	63	.....	..	200	150	1		65,000
36	1 00	844	2	1	2	2	60	.....	..	150	42	....		1,000
37	1 00	400	2	1	2	2	60	.....	..	80	18	....		500
38	85	12,677	42	4	5	51	60	.....	..	125	664	....		50,000
39	90	3,232	10	1	1	11	60	.....	..	112	200	....		100,000
40	90	2,484	5	1	1	6	60	.....	..	140	135	....		20,000
41	85	7,878	16	1	2	19	45	.....	..	196	392	1		30,000
42	1 05	2,286	5	1	1	6	60	.....	..	140	127	....		8,000
43	1 30	1,890	6	1	2	9	90	.....	..	173	50	....		4,000
44	1 00	1,920	4	1	4	4	60	.....	W.	160	96	....		2,000
45	1 00	1,500	2	1	2	2	60	.....	..	150	75	....		1,500
46	1 00	520	1	1	1	1	60	.....	..	140	26	....		800
47	1 00	450	1	1	1	1	60	.....	..	140	22	....		500
48	1 00	350	2	1	2	2	60	.....	..	100	18	....		500
49	85	8,060	20	2	3	25	45	.....	S-M.	183	580	....		30,000
50	1 00	300	2	1	3	2	60	.....	W.	40	10	....		500
51	1 25	2,961	12	1	3	16	45	.....	S-M.	59	145	....		10,000
52	1 25	807	12	1	3	16	45	.....	..	17	35	....		10,000
53	90	6,840	7	2	1	10	60	.....	..	150	360	....		25,000
54	1 25	1,250	3	1	1	4	75	.....	W.	260	64	....		1,000
55	1 50	1,020	4	1	1	5	75	.....	..	130	...	....		800
56	1 50	1,012	4	1	1	5	75	.....	..	170	5	....		800
57	1 50	690	2	1	1	3	75	.....	..	120	2	....		500
58	1 00	370	1	1	1	2	75	.....	..	135	...	....		500

Peoria County—Second District—1898—Concluded.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.							OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.		Total tons produced.	Tons of lump.	Tons of gr.
59	J. I. Aby	Laura	20	4.6	6	Sh.	Ho.	M.		360	360	...
60	William Vaughan	Jubilee	50	3	5	..	..	B.		270	270	...
61	Philip Tully	Brimfield	40	4.2	6	..	..	..		370	370	...
Totals										640, 193	544, 248	9
Averages												

Whole number of openings reported in 1897, 63.

Number of new mines or places opened during the year, 8.

Number of mines exhausted or abandoned during the year, 10.

Whole number of openings reported for 1898, 61.

Rock Island County—Second District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.							OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.		Total tons produced.	Tons of lump.	Tons of gr.
1	Banner Coal Co.	Coal Valley	40	3.6	1	Sl.	S.	B.		7, 375	7, 075	
2	Black Diamond C. Co.	..	50	3.6	1	Sh.	..	..		2, 608	2, 308	
3	Jos. Wilkinson & Co.	..	25	4	1	Sh.	..	..		2, 145	1, 845	
4	Robert Summerson	..	..	4	1	D.	Hd	..		1, 067	1, 067	...
5	James Sackville	..	80	3.6	1	Sh.	Ho.	..		662	662	...
6	Frank Linn	..	30	3.6	1	Sl.	Ho.	..		412	412	...
7	John T. Patterson	..	..	3.6	1	D.	Hd	M.		320	320	...
8	William Wynn & Co.	..	..	3	1	..	..	B.		300	300	...
9	John Hynd	Loding	50	4	1	Sh.	Ho.	B.		8, 006	7, 756	
10	Jamieson & Donald	..	65	3.6	1	S.	S.	..		2, 892	2, 592	
11	Loding Bros	..	30	3.6	1	Sl.	..	..		1, 954	1, 604	
12	Allison & Jamieson	..	40	3.6	1	Sh.	Ho.	..		5, 200	5, 000	
13	Guckert Bros.	Hampton	56	3.6	1	..	..	M.		1, 145	1, 145	...
14	Frederick Vonach	..	70	3.6	1	..	..	B.		800	800	...
15	Charles Mangleson	..	40	3.6	1	Sl.	Hd	M.		476	476	...
16	J. M. Cook	..	50	3.6	1	Sh.	Ho.	B.		420	420	...
17	William Parker	Milan	53	3.6	1	..	S.	..		5, 825	5, 475	
18	David Walsh	..	48	3.6	1	..	..	..		1, 280	1, 280	...
19	Silvis & Silvis	Carbon Cliff	35	3.8	1	Sl.	..	..		3, 903	3, 003	
20	Hayes Coal Co.	Muscataine, Ia.	..	1.8	1	D.	..	M.		700	500	
Totals										47, 490	44, 040	
Averages												

Whole number of openings reported in 1897, 20.

Number of new mines or places opened during the year, 4.

Number of mines exhausted or abandoned during the year, 4.

Whole number of openings reported for 1898, 20.

Peoria County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.			WAGES.			Days of active operation.	AVERAGE.	
	Average value of lump per ton at the mine.	Aggregate value of total product.	No. of miners employed.	Other employees under ground.	All employees above ground.	Total employees.	Price paid per gross ton. For hand mining.	For machine mining.	Paid monthly, semi-monthly or weekly.	Kegs of powder used.	Total. Non fatal.
1	\$1	\$54	1	1	1	3	80	15	1	1	1
2	1	37	1	1	1	3	35	15	1	1	1
3	1	1	1	1	1	3	15	15	1	1	1
4	1	1	1	1	1	3	15	15	1	1	1
5	1	1	1	1	1	3	15	15	1	1	1
6	1	1	1	1	1	3	15	15	1	1	1
7	1	1	1	1	1	3	15	15	1	1	1
8	1	1	1	1	1	3	15	15	1	1	1
9	1	1	1	1	1	3	15	15	1	1	1
10	1	1	1	1	1	3	15	15	1	1	1
11	1	1	1	1	1	3	15	15	1	1	1
12	1	1	1	1	1	3	15	15	1	1	1
13	1	1	1	1	1	3	15	15	1	1	1
14	1	1	1	1	1	3	15	15	1	1	1
15	1	1	1	1	1	3	15	15	1	1	1
16	1	1	1	1	1	3	15	15	1	1	1
17	1	1	1	1	1	3	15	15	1	1	1
18	1	1	1	1	1	3	15	15	1	1	1
19	1	1	1	1	1	3	15	15	1	1	1
20	1	1	1	1	1	3	15	15	1	1	1
21	1	1	1	1	1	3	15	15	1	1	1
22	1	1	1	1	1	3	15	15	1	1	1
23	1	1	1	1	1	3	15	15	1	1	1
24	1	1	1	1	1	3	15	15	1	1	1
25	1	1	1	1	1	3	15	15	1	1	1
26	1	1	1	1	1	3	15	15	1	1	1
27	1	1	1	1	1	3	15	15	1	1	1
28	1	1	1	1	1	3	15	15	1	1	1
29	1	1	1	1	1	3	15	15	1	1	1
30	1	1	1	1	1	3	15	15	1	1	1
31	1	1	1	1	1	3	15	15	1	1	1
32	1	1	1	1	1	3	15	15	1	1	1
33	1	1	1	1	1	3	15	15	1	1	1
34	1	1	1	1	1	3	15	15	1	1	1
35	1	1	1	1	1	3	15	15	1	1	1
36	1	1	1	1	1	3	15	15	1	1	1
37	1	1	1	1	1	3	15	15	1	1	1
38	1	1	1	1	1	3	15	15	1	1	1
39	1	1	1	1	1	3	15	15	1	1	1
40	1	1	1	1	1	3	15	15	1	1	1
41	1	1	1	1	1	3	15	15	1	1	1
42	1	1	1	1	1	3	15	15	1	1	1
43	1	1	1	1	1	3	15	15	1	1	1
44	1	1	1	1	1	3	15	15	1	1	1
45	1	1	1	1	1	3	15	15	1	1	1
46	1	1	1	1	1	3	15	15	1	1	1
47	1	1	1	1	1	3	15	15	1	1	1
48	1	1	1	1	1	3	15	15	1	1	1
49	1	1	1	1	1	3	15	15	1	1	1
50	1	1	1	1	1	3	15	15	1	1	1
51	1	1	1	1	1	3	15	15	1	1	1
52	1	1	1	1	1	3	15	15	1	1	1
53	1	1	1	1	1	3	15	15	1	1	1
54	1	1	1	1	1	3	15	15	1	1	1
55	1	1	1	1	1	3	15	15	1	1	1
56	1	1	1	1	1	3	15	15	1	1	1
57	1	1	1	1	1	3	15	15	1	1	1
58	1	1	1	1	1	3	15	15	1	1	1
59	1	1	1	1	1	3	15	15	1	1	1
60	1	1	1	1	1	3	15	15	1	1	1
61	1	1	1	1	1	3	15	15	1	1	1
62	1	1	1	1	1	3	15	15	1	1	1
63	1	1	1	1	1	3	15	15	1	1	1
64	1	1	1	1	1	3	15	15	1	1	1
65	1	1	1	1	1	3	15	15	1	1	1
66	1	1	1	1	1	3	15	15	1	1	1
67	1	1	1	1	1	3	15	15	1	1	1
68	1	1	1	1	1	3	15	15	1	1	1
69	1	1	1	1	1	3	15	15	1	1	1
70	1	1	1	1	1	3	15	15	1	1	1
71	1	1	1	1	1	3	15	15	1	1	1
72	1	1	1	1	1	3	15	15	1	1	1
73	1	1	1	1	1	3	15	15	1	1	1
74	1	1	1	1	1	3	15	15	1	1	1
75	1	1	1	1	1	3	15	15	1	1	1
76	1	1	1	1	1	3	15	15	1	1	1
77	1	1	1	1	1	3	15	15	1	1	1
78	1	1	1	1	1	3	15	15	1	1	1
79	1	1	1	1	1	3	15	15	1	1	1
80	1	1	1	1	1	3	15	15	1	1	1
81	1	1	1	1	1	3	15	15	1	1	1
82	1	1	1	1	1	3	15	15	1	1	1
83	1	1	1	1	1	3	15	15	1	1	1
84	1	1	1	1	1	3	15	15	1	1	1
85	1	1	1	1	1	3	15	15	1	1	1
86	1	1	1	1	1	3	15	15	1	1	1
87	1	1	1	1	1	3	15	15	1	1	1
88	1	1	1	1	1	3	15	15	1	1	1
89	1	1	1	1	1	3	15	15	1	1	1
90	1	1	1	1	1	3	15	15	1	1	1
91	1	1	1	1	1	3	15	15	1	1	1
92	1	1	1	1	1	3	15	15	1	1	1
93	1	1	1	1	1	3	15	15	1	1	1
94	1	1	1	1	1	3	15	15	1	1	1
95	1	1	1	1	1	3	15	15	1	1	1
96	1	1	1	1	1	3	15	15	1	1	1
97	1	1	1	1	1	3	15	15	1	1	1
98	1	1	1	1	1	3	15	15	1	1	1
99	1	1	1	1	1	3	15	15	1	1	1
100	1	1	1	1	1	3	15	15	1	1	1
101	1	1	1	1	1	3	15	15	1	1	1
102	1	1	1	1	1	3	15	15	1	1	1
103	1	1	1	1	1	3	15	15	1	1	1
104	1	1	1	1	1	3	15	15	1	1	1
105	1	1	1	1	1	3	15	15	1	1	1
106	1	1	1	1	1	3	15	15	1	1	1
107	1	1	1	1	1	3	15	15	1	1	1
108	1	1	1	1	1	3	15	15	1	1	1
109	1	1	1	1	1	3	15	15	1	1	1
110	1	1	1	1	1	3	15	15	1	1	1
111	1	1	1	1	1	3	15	15	1	1	1
112	1	1	1	1	1	3	15	15	1	1	1
113	1	1	1	1	1	3	15	15	1	1	1
114	1	1	1	1	1	3	15	15	1	1	1
115	1	1	1	1	1	3	15	15	1	1	1
116	1	1	1	1	1	3	15	15	1	1	1
117	1	1	1	1	1	3	15	15	1	1	1
118	1	1	1	1	1	3	15	15	1	1	1
119	1	1	1	1	1	3	15	15	1	1	1
120	1	1	1	1	1	3	15	15	1	1	1
121	1	1	1	1	1	3	15	15	1	1	1
122	1	1	1	1	1	3	15	15	1	1	1
123	1	1	1	1	1	3	15	15	1	1	1
124	1	1	1	1	1	3	15	15	1	1	1
125	1	1	1	1	1	3	15	15	1	1	1
126	1	1	1	1	1	3	15	15	1	1	1
127	1	1	1	1	1	3	15	15	1	1	1
128	1	1	1	1	1	3	15	15	1	1	1
129	1	1	1	1	1	3	15	15	1	1	1
130	1	1	1	1	1	3	15	15	1	1	1
131	1	1	1	1	1	3	15	15	1	1	1
132	1	1	1	1	1	3	15	15	1	1	1
133	1	1	1	1	1	3	15	15	1	1	1
134	1	1	1	1	1	3	15	15	1	1	1
135	1	1	1	1	1	3	15	15	1	1	1
136	1	1	1	1	1	3	15	15	1	1	1
137	1	1	1	1	1	3	15	15	1	1	1
138	1	1	1	1	1	3	15	15	1	1	1
139	1	1	1	1	1	3	15	15	1	1	1
140	1	1	1	1	1	3	15	15	1	1	1
141	1	1	1	1	1	3	15	15	1	1	1
142	1	1	1	1	1	3	15	15	1	1	1
143	1	1	1	1	1	3	15	15	1	1	1
144	1	1	1	1	1	3	15	15	1	1	1
145	1	1	1	1	1	3	15	15	1	1	1
146	1	1	1	1	1	3	15	15	1	1	1
147	1	1	1	1	1	3	15	15	1	1	

Stark County—Second District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades
1	George R. Watson....	Wyoming....	73	4.6	6	Sh. Ho. M.			2,030	2,030	.....
2	A. W. Higbie.....	.....	70	4	6	.....			1,406	1,200	† 200
3	James Higbie.....	.....	45	4	6	.....			800	800	.....
4	John Price.....	.....	20	4	6	Sl.			720	720	.....
5	Stephenson & Watson	.....	56	4	6	Sh.			600	600	.....
6	Joseph Swanson....	.....	4	6	D. Hd	.....			480	480	.....
7	Robinson Bros.....	.....	55	4	6	Sh. Ho.			448	448	.....
8	John Thurston.....	.....	4	6	D. Hd	.....			120	120	.....
9	Harry Storey.....	Toulon.....	60	4.3	6	Sh. Ho.			1,440	1,440	.....
10	Henry Newton.....	.....	4	6	D. Hd	.....			520	520	.....
11	Peter Harburger....	.....	4	6	.....	.....			240	240	.....
12	Jesse Saville.....	Modena....	65	4.6	6	Sh. Ho. B. *			1,800	1,600	† 200
13	John Scott.....	.....	60	4.6	6	..... M.			1,440	1,440	.....
14	William Rennick....	.....	50	4.6	6	.....			300	300	.....
15	French & Peterson...	Bradford....	104	4.8	6	..... B. *			2,200	2,200	.....
16	Charles Montooth...	.....	138	5	6	.....			936	936	.....
17	William Jones.....	.....	117	5	6	.....			880	800	.....
18	John Catton.....	West Jersey	5	4	D. Hd	.....			1,490	1,490	.....
19	George Cook.....	Lombardville	130	4.6	6	Sh. Ho.			1,020	1,020	.....
20	Thomas Dodds.....	Lafayette....	30	3.6	6	..... M.			800	800	.....
21	Bever Bros.....	Castleton....	82	5	6	.....			160	160	.....
22	Henry Green.....	Osceola.....	30	4	6	Sl.			1,200	1,200	.....
23	J. M. Robinson.....	Elmira.....	45	4	6	Sh.			992	992	.....
Totals									21,936	21,536	400
Averages											

* Both.

† Slack used at mine for steam for pumping.

Whole number of openings reported in 1897, 22.

Number of new mines opened during the year, 4.

Number of mines exhausted or abandoned during the year, 3.

Whole number of openings reported for 1898, 23.

Stark County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.				WAGES.			Days of active operation.	Kegs of powder used.		ACCI- DEN'S		Capacity of mine— tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employes un- der ground.	All employes above ground.	Total employes.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly.		Fatal.	Non-fatal.			
							For hand- mining.	For machine- mining.							
1	\$1 25	\$2,537	5		1	6	\$0.75		S. M.	200	10				20,000
2	1 50	1,800	4		1	5	75			180	8				15,000
3	1 50	1,200	5		1	6	75			160	8				25,000
4	1 25	900	3			3	75			140	6				10,000
5	1 50	900	3		1	4	75			140					10,000
6	1 50	720	3			3	75			110					500
7	1 50	672	2		1	3	75			140					500
8	1 25	150	1			1	65			65					500
9	1 25	1,800	4		1	5	75			155	25				20,000
10	1 25	650	2			2	75			160					800
11	1 25	300	2			2	75			100					500
12	1 50	2,400	4		1	5	87.5			200	90				15,000
13	1 50	2,160	3		1	4	87.5			129	5				10,000
14	1 50	450	3		1	3	87.5			100	5				500
15	1 75	3,850	5		1	6	87.5			180	80				8,000
16	1 75	1,638	3		1	4	87.5			140	60				5,000
17	1 75	1,400	3		1	4	87.5			120	70				5,000
18	1 50	2,235	3		1	4	75			250	35				10,000
19	1 75	1,785	4		1	5	1 00			180	40				5,000
20	1 25	1,000	2		1	3	75			150					1,000
21	1 50	240	2		1	3	75			40					3,000
22	1 50	1,800	4		1	5	75			160					4,000
23	1 25	1,240	3		1	4	75			165					5,000
		\$31,827	72		18	90					442				174,300
\$1 48							\$0.80			146					

Woodford County—Second District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades.
1	C. & M. C. & T. Wks.	Minonk	552	2.8	12	Sh.	2	M.	75,000	61,500	13,500
2	Roanoke Mining Co...	Roanoke.....	480	2.6	12	Sh.	2	M.	70,840	63,250	7,590
	Totals.....	.....							145,840	124,750	21,090
	Averages .....	.....								

Whole number of openings reported in 1897, 2.

Number of new mines or places opened during the year, 0.

Number of mines exhausted or abandoned during the year, 0.

Whole number of openings reported for 1898, 2.

Woodford County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.				WAGES.			Days of active operation.	Kegs of powder used.	ACCI- DENTS		Capacity of mine- tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employes un- der ground.	All employes above ground.	Total employes.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly.					
							For hand- mining.	For machine mining.						
1	\$1.25	\$82,275	200	30	20	250	\$0.63	.....	S-M	150	.....	2	8	125,000
2	1.25	82,098	155	21	12	188	.63	.....	S-M.	171	.....	7	1	105,000
	.....	\$164,373	355	51	32	438	.....	.....	.....	.....	.....	7	3	230,000
	\$1.25	.....	.....	.....	.....	.....	\$0.63	.....	.....	160	.....	.....	.....	.....

Whole number of openings reported in 1897, 2.

Whole number of openings reported for 1898, 2.

Woodford County—Second District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades
1	C. & M. C. & T. Wks.	Minonk	552	2.8	ss	Sh.	ss	M.	75,000	61,500	13,500
2	Roanoke Mining Co...	Roanoke.....	480	2.6	ss	Sh.	ss	M.	70,840	63,250	7,590
	Totals.....								145,840	124,750	21,090
	Averages										

Whole number of openings reported in 1897, 2.

Number of new mines or places opened during the year, 0.

Number of mines exhausted or abandoned during the year, 0.

Whole number of openings reported for 1898, 2.

Woodford County, 1898—Concluded.

Number.	VALUES.		EMPLOYEES.				WAGES.		Paid monthly, semi-monthly or weekly.	Days of active operation.	Kegs of powder used.		ACCI- DENTS		Capacity of mine- tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employes un- der ground.	All employes above ground.	Total employes.	Price paid per gross ton.								
							For hand- mining.	For machine mining.							
1	\$1.25	\$82,275	200	30	20	250	\$0.63	.....	S-M	150	.....	2	8	125,000
2	1.25	82,098	155	21	12	188	.63	.....	S-M.	171	.....	7	1	105,000
.....		\$164,373	355	51	32	438	.....	.....	.....	.....	.....	7	3	230,000
	\$1.25	.....	.....	.....	.....	.....	\$0.63	.....	.....	160	.....	.....	.....	.....

Whole number of openings reported in 1897, 2.

Whole number of openings reported for 1898, 2.

Recapitulation by Counties—

COUNTY.	MINES.					PRODUCTS.					VALUES.	
	Number of mines.	Shipping mines.	Mines in local trade.	New mines.	Abandoned mines.	Total tons produced.	Tons of lump coal.	Tons of other grades.	Tons shipped.	Estimated capacity (in tons) of existing mines.	Average value per ton of lump at the mine.	Aggregate value of total product.
Bureau	17	7	10	..	1	865,892	713,571	152,321	800,162	2,011,300	\$1 15	\$866,182
Henry	30	4	26	7	6	159,049	142,460	16,589	48,454	245,100	1 41	207,537
Marshall....	14	4	10	1	1	286,365	226,038	60,327	263,793	655,500	1 24	309,596
Mercer	17	5	12	3	2	384,345	264,059	120,286	337,685	867,700	1 29	418,613
Peoria.....	61	24	37	8	10	640,193	544,248	95,945	535,088	1,621,640	95	545,384
Rock Island	20	2	18	4	4	47,490	44,040	3,450	2,968	103,200	1 49	66,184
Stark.....	23	..	23	4	3	21,936	21,536	400	.....	174,300	1 48	31,827
Woodford...	2	2	..	..	..	145,840	124,750	21,090	125,282	230,000	1 25	164,373
Totals	184	48	136	27	27	2,551,110	2,080,702	470,408	2,113,432	5,908,740		\$2,609,696
Averages..											\$1 16	

Whole number of openings reported in 1897, 184.

Number of new mines or places opened during the year, 27.

Number of mines exhausted or abandoned during the year, 27.

Whole number of openings reported for 1898, 184.

Second District—1898.

EMPLOYEES.			Average number of days of active operation.	Number of kegs of powder used.	CASUALTIES.				WAGES.		MACHINES.		
Number of miners.	Number of other employees.	Total employes.			Killed.	Injured.	Widows.	Children.	Average price paid per gross ton.		Number of mines using machines.	Number of machines in use.	Total tons cut by ma-
									For hand mining.	For machine mining.			
2,322	593	2,915	160	351	2	31	1	....	\$0.64	.....	.....	.....	.....
394	67	461	173	1,597	....	4	....	....	*.828	.....	.....	.....	.....
664	173	837	160	1,303	1	5	1	3	.63	.....	.....	.....	.....
527	287	814	171	15,961	2	5	2	4	.49	.....	.....	.....	.....
874	218	1,092	161	21,824	1	4	1	3	†.488	\$0.27	2	8	87,944
128	24	152	156	1,720	1	1	1	2	.805	.....	.....	.....	.....
72	18	90	146	442	....	....	....	....	.80	.....	.....	.....	.....
355	83	438	160	7	3	10	2	5	.63	.....	.....	.....	.....
5,336	1,463	6,799	.....	43,205	10	60	8	17	.....	.....	2	8	87,944
			161,3						\$0.585	\$0.27	.....	.....	.....

*Per screened ton.

†Average for 99,306 screened tons, 64.2 cents per ton; for 458,652 gross tons, 48.8 cents per ton.

‡Average for 340,590 screened tons, 75.2 cents per ton; for 2,122,576 gross tons, 58.5 cents per ton.

THIRD INSPECTION DISTRICT—1898.

Counties: Brown, Fulton, Hancock, Knox, McDonough, Schuyler, Warren.

JOHN W. GRAHAM, *Inspector*, Dunfermline.

HON. DAVID ROSS, *Secretary*,

State Bureau of Labor Statistics, Springfield, Illinois:

SIR:—In compliance with section 12 of the general mining law of the State of Illinois, I have the honor to submit to you the fifteenth annual report of the Third Inspection District for the year ending July 1, 1898. This report shows an increase in output of 146,667 tons over that of 1897. The largest increase is in Fulton county, although there is a considerable increase in McDonough county and some increase in the other counties. A good deal of coal from the local mines finds its way to the railway cars in the time of labor troubles, as the railway companies pay good prices then for coal loaded on their tracks. The following is a summary of the report as taken from the statistical tables:

Number of counties producing coal	7
Total number of mines	217
Number of shipping mines	21
Number of local mines	196
Total tons produced	721,846
Tons of lump coal	590,299
Tons of other grades	131,547
Tons shipped by rail	549,799
Average value of lump coal at the mines	\$1 10.8
Aggregate value of total product	\$708,691
Number of miners	1,497
Number of other employes	298
Total employés	1,795
Average number of days of active operation	135.4
Number of kegs of powder used	21,601
Fatal accidents	4
Non-fatal accidents	12
Wives made widows	2
Children left fatherless	1
Number of tons produced to each fatal accident	180,461
Number of tons produced to each non-fatal accident	60,154
Number of employés per fatal accident	445
Number of employés per non-fatal accident	149

Mine Fire.—November 30, 1897, the Meredith Bros.' mine at Augusta, Hancock county, was destroyed by fire. It was a gin-shaft, worked with horse power. The gin and all the other buildings around the mine were destroyed. It took about two weeks to rebuild them and get in running order.

New Mines.—George VanWinkle, of Avon, has sunk a shaft down to the No. 1 seam. It is located at his brickyard, and is intended to furnish coal for making brick and also for the local trade. The seam is about 3 inches thick and about 40 feet below the surface.

Algreen and Simmons, at East Galesburg, are sinking a shaft to the No. 2 seam at the Galesburg Paving Brick Company's plant. They started to sink about the first of June, but they lost the first shaft after getting down nearly to the coal. They have now another shaft nearly completed. The seam is about 24 inches thick and is 70 feet below the surface.

Labor Troubles.—The general strike of 1897 was not so extensive in this district as in other parts of the State, but in the latter part of July nearly all of the shipping mines were idle under the influence of the general movement. The men returned to work at different times and under different conditions, but the average advance that was gained was 2½ cents per gross ton, and the time lost would average about thirty days. After that the mines run pretty steady for about three months, which accounts for the increase in production in this district. There has been no trouble of a general nature in this district since.

At the Whitebreast Fuel Co's mine at Dunfermline there are two machines, worked with compressed air. The machines cut the coal from top to bottom, or perpendicularly in the middle; then the coal is blasted from each side of the cut. The machine runners and helpers are paid by the day, but all other work is done by the gross ton, for which the miners receive 31 cents. The miners claimed that they could not make living wages at that price, so on the 25th of May last they came out on a strike. There were about 30 miners employed behind the machines and they were all that were involved in this trouble, as the hand miners remained at work. After being idle about five weeks the company employed other men by the day to do the work, and they are still working that way, but the controversy is still unsettled. Some of the old men have received work at hand-mining and some have gone away. At the present time there are only five men unemployed.

Abandoned Mines.—The mine at Bryant is still closed; it has not been worked for three years. The mine at Norris has changed hands twice within the year. Of all the new mines reported there is none of any note. The coal is so near the surface that there are new mines being put in continually and old ones being abandoned. When the same parties abandon a mine and open a new one near by, it is reported as an old mine.

Fatal Accidents.—Thomas Martin, aged 28 years, a miner, married, leaves a widow and one child, was killed August 30, 1897, in George Tryon's local mine at Farmington, Fulton Co. The deceased, with his brother, went into the mine to commence work, but on reaching their room the air was found to be unfit to work in, so they returned to the foot of the slope to make a fire to improve the ventilation: but, on reaching this point they were so exhausted that they both fell down and called for help. The call was heard by George and Ben Tryon, who were at the top of the slope. They came and took William Martin to the surface and he recovered all right, but when Thomas Martin was taken out it was found that he was dead. This is a new

mine, with a slope about 50 feet long, and the farthest point in the workings is only 70 feet from the foot of the slope. An air shaft was being put down, and it only lacked a few feet from the coal. Only four miners were employed in the mine.

John Cepuhar, aged 24 years, a miner and single, was killed December 14, 1897, in the Whitebreast Fuel Co.'s mine "C," at Dunfermline, Fulton county. Peter C. Shadick was his partner in the mine, and left him at 3 o'clock p. m. There were two shots to be fired in their place, and Cepuhar agreed to wait till 5 o'clock to fire them, as they were not allowed to fire till that time. At 5:30 o'clock Shadick became alarmed because Cepuhar did not come home, and he went into the mine to look for him. He found him lying in his roadway, about five yards from the face of his room. When found he was dead; the flying coal from the shots had struck him; his head was bruised all over and he was otherwise badly cut. From all the surroundings it appears that after lighting his shots he had lost his light and became confused, and thus failed to make his escape to a safe place of refuge.

Edward Williams, aged 24 years, a miner, who leaves a widow and one child, was injured April 26, 1898, at the Colchester Coal and Mining Co.'s mine, Colchester, McDonough county. He was working in room No. 13, in the southwest entry, taking out the pillar which, with his two partners, he had cut through the day before. On the above date he went into his room with his partners, and had been at work only about ten minutes when a fall of the roof occurred which caught him. He was taken out from under the fall as soon as possible, and it was found that he was badly hurt, and he died in twelve hours.

Ely Motley, aged 32 years, by occupation a miner and married, was injured on April 28, 1898, at the Canton Union Coal Co.'s mine, Canton, Fulton county. The coal at this place is hauled with a rope up a small slope from the mine, and then up an incline to the dump. On the above date deceased was riding on the front end of a trip of cars up the incline to the top of the dump. When he reached the top his foot caught on a roller and he was thrown down in front of the trip of cars. The first car went over him and he was severely crushed, from the effects of which he died in four days.

The management prohibits the employes from riding on the trips, but Motley was one of the company and this day took liberties that others would not be allowed to take.

The following tables give the details of the fatal and non-fatal accidents, and also the statistics of character and production for each mine of each county in the district.

Respectfully submitted,

JOHN W. GRAHAM,
State Inspector of Mines, Third District.

DUNFERMLINE.

Fatal Casualties—Third District—1898.

Date.	Name.	Age.	Occupation.	Residence.	Married.	Widow.	Children.	Single.	Depend'nts	Cause of Accident.
1897.										
Aug. 30	Thomas Martin	23	Miner	Farmington	1	1	1	1	2	Inhaling gas
Dec. 24	John Cepuhar	24		Dunfermline	1	1	1	1	1	Flying coal from shaft
1898.										
Apr. 26	Edward Williams	24	"	Colchester	1	1	1	1	2	Falling roof
28	Ely Motley	32	"	Canton	1	1	1	1	1	Run over by pit-cars
	Totals				3	3	2	1	5	

Total fatal casualties—4.

Recapitulation of Fatal Casualties—Third District—1898.

Residence.	No.	Occupation.	No.	Nature of Casualty	No.	Colliery.	No.
Canton	1	Miners	4	Falling roof	1	Canton Union C. Co.	1
Colchester	1			Fly'g coal fr'm shaft	1	Colchester Coal Co.	1
Dunfermline	1			Inhaling gas	1	Tryon, George	1
Farmington	1			Run ov'r by pit cars	1	Whitebreast Fuel Co.	1
Totals	4		4		4		4

Non-Fatal Casualties—Third District—1898.

Date.	Name.	Age.	Residence.	Married.	Single.	Children.	Dependents.	Character of Injury.	Time lost—days.
1897.									
July 16	James Taylor	42	Wataga	1	1	2	3	Ribs broken and body injured	75
Aug. 19	Wm. Jacobs	25	Youngstown	1	1	1	1	Leg broken	60
Oct. 1	James Jackson	32	St. David	1	1	1	2	Leg injured	15
" 12	Thomas Whalen	36	Onesburg	1	1	1	1	Back injured	70
" 22	Wm. F. Myers	39	St. David	1	1	3	4	Overcome by powder smoke	12
Nov. 2	R. Davis	22	Colchester	1	1	1	2	Back injured	50
19	James Watts	24	Dunfermline	1	1	2	3	Ribs broken	12
Dec. 30	Roy Spinney	15	Canton	1	1	1	1	Leg broken	65
1898.									
Jan. 27	Alex. McClain	49	Farmington	1	1	1	1	Body injured	30
Feb. 24	Thomas Guy	22	Colchester	1	1	1	1	Back injured	20
June 13	A. Hammerbach	60	Middle Grove	1	1	5	1	Legs injured	17
" 17	Enoch Blanch	60	"	1	1	6	7	Head injured	13
	Totals			8	4	20	23		

Total men injured
 Total time lost
 Average time lost per man

12
 439 days.
 36.6

Recapitulation of Non-Fatal Casualties—Third District—1898.

Residence.	No.	Occupation.	No.	Nature of Casualty	No.	Colliery.	No.
Canton	1	Cager	1	Falling coal.....	1	Carbon Coal Co.....	1
Colchester.....	2	Driver	1	Falling from cage.	1	Canton Coal Co.....	1
Dan'ermine..	1	Miners.....	8	Falling rock.....	6	Farmington Coal Co.	1
Farmington ..	1	Operator.....	1	Gin sweep	1	Rippetoe & Rundle..	2
Galesburg ..	1	Pusher	1	Pit cars	2	Ross & Woodward..	1
Middle Grove.	2			Powder smoke	1	Sunday Creek C. Co.	2
St. David.....	2					Taylor Bros.....	1
Wataga.....	1					Wearmouth, Thomas	1
Youngstown..	1					Whitebreast Fuel Co.	2
Totals	12		12		12		12

Table showing the Nature of Injuries, Number of Persons Injured, Dependents, Time Lost, with Averages and Percentages—Third District.

NATURE OF INJURIES.	Number.	Married.	Single.	Dependents.	TIME LOST.		Per cent of injuries.
					Total days.	Average days.	
Backs injured.....	3	1	2	3	140	46.2	25
Bodies injured.....	2	2		5	42	21	16.9
Head injured.....	1	1		7	13	13	8.4
Legs broken.....	2		2		125	62.1	16.9
Legs injured.....	2	2		2	32	16	16.9
Ribs broken.....	2	2		6	87	43.1	16.9
Totals, averages and percentages	12	8	4	23	439	36.6	100.00

Brown County—Third District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.							OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades	
1	Jerry O'Neil	Ripley	40	12	12	D.	Hd	M.	200	200	.....
2	Douglas McClure	Mt. Sterling ..	40	12	12	..	..	..	175	175	.....
3	Charles Dunlap .....	..	40	12	12	..	..	..	100	100	.....
4	H. Cronicle .....	..	40	12	12	..	..	..	100	100	.....
5	Samuel Baily .....	..	40	12	12	..	..	..	140	140	.....
6	Geo. Ashbacher .....	..	40	12	12	..	..	..	130	130	.....
7	T. F. Lewis .....	..	40	12	12	..	..	..	120	120	.....
8	John Adams .....	..	40	12	12	..	..	..	175	175	.....
9	Thomas Brady	Damon										
10	Barney Ridder .....	..									
11	T. Redmond & Bros. ....	..									
12	A. Murschhauser	Mt. Sterl'g *				..	..	..	800	800	.....
13	G. Griffith .....	..									
14	F. Samuels .....	..									
15	Jake Fredlin .....	..									
16	Daniel Flinn	Daisey										
Totals.....									1,940	1,940	.....
Averages .....											.....

* Surface strippings.

Whole number of openings reported in 1897, 13.

Number of new mines or places opened during the year, 3.

Whole number of openings reported for 1898, 16.

Brown County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.				WAGES.			Days of active operation.	Kegs of powder used.	ACCI- DEN'S		Capacity of mine— tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per screened ton.		Paid monthly, semi- monthly or weekly.					
							For hand- mining.	For machine- mining.						
1	\$1 50	\$300	.....	.....	.....	.....	\$1 00	.....	W.	120	.....	.....	.....	500
2	1 50	262	.....	.....	.....	.....	1 00	.....	"	100	.....	.....	.....	500
3	1 50	150	.....	.....	.....	.....	1 00	.....	"	70	.....	.....	.....	500
4	1 50	150	.....	.....	.....	.....	1 00	.....	"	80	.....	.....	.....	500
5	1 50	210	.....	.....	.....	.....	1 00	.....	"	100	.....	.....	.....	500
6	1 50	195	.....	.....	.....	.....	1 00	.....	"	100	.....	.....	.....	500
7	1 50	180	.....	.....	.....	.....	1 00	.....	"	100	.....	.....	.....	500
8	1 50	262	.....	.....	.....	.....	1 00	.....	"	100	.....	.....	.....	500
9														
10														
11														
12	1 50	1,200	12	.....	.....	12	.....	.....	"	800	.....	.....	.....	3,600
13														
14														
15														
16														
		\$2,969	28	.....	.....	28	.....	.....						7,600
	\$1 50	.....	.....	.....	.....	.....	\$1 00	.....		98	.....	.....	.....	.....

Fulton County—Third District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.							OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades.	
1	Whitebreast F. Co., C	Dunfermline.	90	5	5	Sh.	S.	B.	142,302	107,206	35,096	
2	Carbon Coal Co.	St. David	60	5	5	Sh.	S.	B.	61,817	44,416	17,401	
3	Astoria Coal & M. Co.	Astoria	70	5.6	5	Sh.	S.	B.	20,762	14,423	6,339	
4	Sunday Crk Coal Co.	Middle Grove.	70	5.6	5	Sh.	S.	B.	54,597	35,804	18,793	
5	W. L. Pierce & Co., less.	Farmington	106	4	5	Sh.	S.	B.	47,072	31,932	15,690	
6	Farmington Coal Co.	Farmington	85	4	5	Sh.	S.	B.	30,887	24,176	6,711	
7	Findley C. & C. Co.	Monmouth	145	4	5	Sh.	S.	B.	31,331	23,624	7,597	
8	J. M. Laws	Cuba	67	4	5	Sh.	S.	B.	12,226	9,526	2,700	
9	Taylor & Peck	Galesburg	80	4.6	5	Sl.	S.	B.	16,772	16,772	0	
10	P. W. Meehan	Breeds	80	4.6	5	Sl.	Ho.	B.	13,750	10,100	3,650	
11	Cline & Shaw	Galesburg	70	4.6	5	Sh.	S.	B.	23,700	16,700	7,000	
12	Canton Union C. Co.	Canton	30	4.6	5	Sh.	S.	B.	7,870	7,870	0	
13	Canton Coal Co.	Canton	50	4.6	5	Sh.	S.	B.	28,700	22,700	6,000	
14	H. W. Stickler	St. David	80	4.6	5	Sh.	Ho.	B.	14,318	14,318	0	
15	Thomas Parcell	St. David	60	4.6	5	Sh.	Ho.	B.	600	600	0	
16	Wages & Murphey	St. David	70	4.6	5	Sl.	Ho.	B.	1,250	1,250	0	
17	Louis Memmon	St. David	60	4.6	5	D.	Ho.	B.	1,435	1,435	0	
18	P. Linden & Son	St. David	60	4.6	5	D.	Ho.	B.	1,025	1,025	0	
19	Peck & McClure	St. David	50	4.6	5	Sh.	S.	B.	880	880	0	
20	Charles Scanlon	St. David	45	4.6	5	Sh.	S.	B.	1,000	1,000	0	
21	John Martin	St. David	40	4.6	5	D.	S.	B.	870	870	0	
22	Solenberger & Tygret	St. David	40	4.6	5	D.	S.	B.	850	850	0	
23	Charles Minuet	St. David	40	4.6	5	Sl.	S.	B.	700	700	0	
24	W. Hughes	St. David	40	4.6	5	D.	S.	B.	600	600	0	
25	Michael Timothy	St. David	40	4.6	5	D.	S.	B.	550	550	0	
26	George Wynn	St. David	40	4.6	5	Sh.	S.	M. B.	625	625	0	
27	John Fuller	St. David	40	4.6	5	D.	Ho.	B.	415	415	0	
28	Oliver Harris	St. David	40	4.6	5	D.	Ho.	B.	400	400	0	
29	Wm. Jordan	St. David	40	4.6	5	D.	Ho.	B.	375	375	0	
30	Wm. Shryock	St. David	30	5	5	Sh.	S.	B.	175	175	0	
31	Thomas Courtney	St. David	40	5	5	Sh.	S.	B.	183	180	3	
32	L. R. Snyder	St. David	40	5	5	Sh.	S.	B.	120	120	0	
33	Lowry & K. (lessees)	Lewistown	40	5	5	Sh.	S.	B.	400	400	0	
34	Turner Bros	Lewistown	30	2.4	2	D.	S.	B.	2,980	2,980	0	
35	Isaac Bath	Lewistown	75	2.6	2	Sh.	S.	B.	3,042	3,042	0	
36	Wm. H. Chapman	Lewistown	35	2.4	2	Sh.	Ho.	M.	1,430	1,430	0	
37	T. H. Jarvis	Astoria	30	2.4	2	D.	Ho.	M.	480	480	0	
38	L. Hoops	Astoria	35	5	5	Sh.	S.	B.	3,500	3,000	500	
39	John Perry	Astoria	30	2.6	2	D.	Ho.	M.	400	400	0	
40	W. Willick	Astoria	30	2.6	2	D.	Ho.	M.	200	200	0	
41	Thomas Ewing	Astoria	40	5	5	Sh.	Ho.	B.	1,806	1,806	0	
42	Wm. Suggett	Breeds	45	5	5	Sl.	Ho.	B.	250	250	0	
43	Bartlett & Bradley	Cuba	40	4.6	5	Sh.	S.	B.	200	200	0	
44	John Hamilton	Cuba	50	5	5	D.	Ho.	B.	2,300	1,700	600	
45	George Marshall	Cuba	50	5	5	D.	Ho.	B.	280	280	0	
46	John Stevens	Cuba	50	5	5	D.	Ho.	B.	480	480	0	
47	Sam Smith	Cuba	50	5	5	D.	Ho.	B.	240	240	0	
48	David Nappin	Farmington	50	5	5	D.	Ho.	B.	240	240	0	
49	Elijah Webster	Farmington	50	4	4	Sh.	Ho.	M.	800	700	100	
50	George Endres	Farmington	40	4	4	Sh.	Ho.	M.	750	750	0	
51	Albert Eyman	Lewistown	50	2.4	2	D.	Ho.	B.	525	525	0	
52	T. Parcell & Co. (lessee)	Norris	112	4.6	6	Sh.	S.	B.	7,720	7,720	0	
53	Martin & Straley	Norris	20	4.6	6	D.	Ho.	M.	300	300	0	
54	Wm. Allen	Middle Grove.	55	4	4	Sh.	S.	B.	425	425	0	
55	Menzo Morse	Middle Grove.	50	4	4	Sh.	S.	B.	180	180	0	
56	Lewis Loopman	Middle Grove.	50	4	4	Sh.	S.	B.	370	370	0	
57	Wm. Fennell	Middle Grove.	45	4	4	Sh.	S.	B.	200	200	0	
58	Melvin Morse	Middle Grove.	45	4	4	Sh.	S.	B.	368	368	0	
59	L. S. Sprague	Breeds	40	4	4	Sh.	S.	B.	100	100	0	
60	John Williams	Banner	45	4	4	Sh.	S.	B.	350	350	0	
61	Charles Snyder	Banner	45	4	4	Sh.	S.	B.	300	300	0	

Fulton County, 1898—Continued.

Number.	VALUES.		EMPLOYES.				WAGES.		Days of active operation.	Kegs of powder used.	ACCI- D'NTS.		Capacity of mine— tons.	
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employes un- der ground.	All employes above ground.	Total employes.	Price paid per gross ton.				Paid monthly, semi- monthly or weekly			
							For hand mining.	For machine mining.						
1	\$1 03	\$133,936	173	48	23	244	\$0 45*	\$0 31	S.M.	174	4,584	1	1	200,000
2	1 11	56,314	82	19	10	111	45			110	1,981	1	1	100,000
3	1 00	16,007	55	8	10	73	45			110	708		1	60,000
4	1 19	51,251	65	10	6	81	45			232	1,393			90,000
5	86	28,714	55	10	7	72	45			154	2,100		2	72,000
6	1 00	25,853	70	6	6	82	45			180	2,600			75,000
7	1 00	25,700	49	10	8	67	45			125	1,465		1	100,000
8	92.5	9,712	14	3	3	20	45			150	411			40,000
9	80	13,417	25	4	5	34	45			180	448			30,000
10	1 00	11,925	33	3	2	37	45			140	450			30,000
11	90	17,130	32	2	3	37	45			200	800			40,000
12	1 25	9,837	15	2	1	18	45			200	100			12,000
13	1 00	25,100	32	3	2	37	45			210	950	1		40,000
14	1 00	14,318	15	1	2	18	65			200	475		1	20,000
15	1 00	600	3		1	4	60			100	30			1,800
16	1 00	1,250	4		1	5	60			150	45			2,500
17	1 00	1,435	4			4	60			175	72			2,500
18	1 00	1,025	3			4	60			170	50			1,800
19	1 00	880	3			2	60			220	46			1,200
20	1 00	1,000	4		1	4	60			125	50			2,500
21	1 00	870	3			3	30			145	42			1,800
22	1 00	850	3			3	60			140	40			1,800
23	1 00	700	3			3	60			125	35			1,600
24	1 00	600	3			3	60			120	30			1,600
25	1 00	550	3			3	60			130	30			1,200
26	1 00	625	3			3	60			120	33			1,600
27	1 00	415	3		1	3	60			100				1,200
28	1 00	400	3			3	60			115	25			1,000
29	1 00	375	3			3	60			110	23			1,000
30	1 00	275	1			1	60			80	10			600
31	1 00	180	1			1	60			80	10			600
32	1 00	120	1			1	60			70	7			600
33	1 00	400	1			1	60			200	22			600
34	1 12.5	3,352	5			5	90			300	100			3,000
35	1 25	3,802	4	1	2	7	60			200	152			4,000
36	1 25	1,787	5			6	87.5			270				2,000
37	1 00	480	5		1	3	87.5			125				1,000
38	1 25	4,000	5	1	1	7	45			250	50			4,000
39	1 10	440	2			2	86.5			180				700
40	1 10	220	2			2	87.5			70				800
41	1 10	1,986	3			3	60			200				2,400
42	1 00	250	3			3	45			65	5			1,000
43	87.5	175	1			1	45			85	8			700
44	85	1,565	4		1	5	45			200	75			3,000
45	75	210	1			1	45			85	7			800
46	75	360	2			2	45			125	16			1,100
47	75	180	1			1	45			125	8			550
48	75	180	1			1	45			125	8			550
49	1 25	725	4		1	5	75			150				1,600
50	1 25	300	2			2	75			100		1		800
51	1 25	937	3		1	4	75			100				2,000
52	1 25	656	3			3	70			185				800
53	1 00	7,720	10	2	6	18	45			170	300			12,000
54	1 00	300	2			2	75			80				1,000
55	1 00	425	2			2	70			120	16			1,100
56	1 00	180	1			1	65			100	9			550
57	1 00	370	2			2	65			125	14			1,100
58	1 00	200	1			1	65			200				300
59	1 00	368	2			2	65			168	12			800
60	90	90	1			1	60			60	5			500
61	90	315	2			2	60			120	12			300
62	90	270	2			2	60			100	12			300

* Price paid per gross ton; all others are prices per screened ton.

Fulton County—Third District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.							OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.		Total tons produced.	Tons of lump.	Tons of other grades
63	R. E. Gould & Co.....	Fairview.....	50	4	6	D.	Hd	M.		1,207	1,207	.....
64	John Abbdusky.....	".....	50	5	5	"	"	B.		700	700	.....
65	Dan Williams.....	".....	55	5	5	"	"	"		320	320	.....
66	Thomas Caldwell.....	Avon.....	35	5	12	Sl.	"	M.		1,400	1,400	.....
67	Henry Walton.....	Prairie City.....	35	4	12	"	"	"		900	900	.....
68	Robert Rodis & Son.....	Ipava.....	40	5	5	"	"	B.		1,000	1,000	.....
69	Brown & Murray.....	".....	30	2.4	12	"	"	M.		250	250	.....
70	G. W. Offord.....	Marrietta.....	20	2.4	12	D.	"	"		280	280	.....
71	R. Welsh.....	".....	30	2.4	12	"	"	"		300	300	.....
72	S. Keppell.....	".....	30	2.4	12	"	"	"		250	250	.....
73	H. Havins.....	".....	35	2.4	12	"	"	"		320	320	.....
74	Lance & Horr.....	".....	35	2.4	12	"	"	"		350	350	.....
75	W. Foraker.....	".....	40	2.4	12	"	"	"		200	200	.....
76	Theo. Anderson.....	".....	40	2.4	12	"	"	"		200	200	.....
77	W. Anderson.....	".....	40	2.4	12	"	"	"		280	280	.....
78	Anderson & Miller.....	".....	40	2.4	12	"	"	"		150	150	.....
79	G. N. Kerstetter.....	Leaman.....	30	3.6	1	Sl.	"	B.		100	100	.....
80	R. Bladgen.....	".....	30	3.6	1	"	"	"		400	400	.....
81	Joseph Clark.....	New Phila'pa.....	50	2.4	2	D.	"	M.		350	350	.....
82	Geer & Kirkbride.....	Vermont.....	30	2.4	12	"	"	"		380	380	.....
83	Witchell Bros.....	".....	30	2.4	12	"	"	"		290	290	.....
84	P. R. Johnson.....	".....	†	2.4	12	"	"	"		* 3,460	3,460	.....
85	J. W. Willis & Co.....	Table Grove.....	100	2.2	12	Sh.	S.	B.		650	650	.....
86	R. Daugherty.....	".....	40	2.4	12	D.	Hd	M.		300	300	.....
87	Wm. Fiddler.....	Dunfermline.....	†	5	5	"	"	"		350	350	.....
Totals.....										563,397	435,310	128,087
Averages.....												

* This coal was brought from various strip mines and shipped at Vermont.

† Strip mines.

Whole number of openings reported in 1897, 82.

Number of new mines or places opened during the year, 17.

Number of mines exhausted or abandoned during the year, 12.

Whole number of openings reported for 1898, 87.

Fulton County, 1898—Concluded.

VALUES.		EMPLOYES.				WAGES.		Days of active operation.	ACCI- DEN'S		Capacity of mine— tons.		
Number.	Av. value of lump per ton at the mine.	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.		Kegs of powder used	Fatal.		Non-fatal.	
							For hand- mining.						For machine- mining.
63	\$1 00	\$1,207	4			4	\$0 60	S. M.	180				1,600
64	1 00	760					60		140				1,400
65	1 00	320					60		100	24			900
66	1 75	2,450	5			5	1 25		230	13			1,800
67	1 75	1,575					1 25		226				1,200
68	1 25	1,250	5			5	60		170	32			1,800
69	1 25	312					1 00		150				500
70	1 25	350					1 00		100				800
71	1 25	375					1 00		100				700
72	1 25	312					1 00		100				700
73	1 25	400					1 00		100				900
74	1 25	437	3			3	1 00		120				800
75	1 25	250	1			1	1 00		200				300
76	1 25	250	1			1	1 00		200				300
77	1 25	350	2			2	1 00		120				600
78	1 25	187	1			1	1 00		140				350
79	1 00	100	1			1	60		60	5			500
80	1 00	400	2			2	60		150	16			800
81	1 25	437					1 00		150				700
82	1 25	475					1 00		180				600
83	1 25	362					1 00		150				600
84	1 00	3,460	5			5			144				
85	1 75	1,137	3			3	1 00		250				800
86	1 50	450	2			2	1 00		140				600
87	1 00	350	2			2	60		50				1,500
		\$501,423	901	132	106	1,139				20,001	3	7	1,007,050
\$1.02.9							†	\$0.31	144				

† Average price per screened ton, 71.6 cents.

Hancock County—Third District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades.
1.	Merideth Bros.....	Augusta.....	60	2.6	2	Sh.	Ho.	M.	4,200	4,200	
2.	Highland & Marks	".....	30	2.6	2	"	"	"	250	250	
3.	M. F. Ray	".....	30	2.6	2	"	"	"	350	350	
4.	Wm. Courtney.....	".....	30	2.6	2	"	"	"	800	800	
Totals.....									5,600	5,600	
Averages											

Whole number of openings reported in 1897, 4.

Whole number of openings reported for 1898, 4.

Hancock County, 1898—Concluded.

Number.	VALUES.		EMPLOYEES.				WAGES.			Days of active operation.	Kegs of powder used.	ACCI- DENTS		Capacity of mine— tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed,	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per screened ton.		Paid monthly, semi- monthly or weekly.					
							For hand- mining.	For machine- mining.						
1	\$1 35.	\$5,670	14		2	16	\$0 93		W.	200			6,000	
2	1 75	438	3		1	3	1 00		"	100			800	
3	1 75	612	4		1	5	1 00		"	80			800	
4	1 75	1,400	5		1	6	1 00		"	140			1,200	
		\$8,120	25		5	30							8,600	
	\$1 45						\$0 94.7			130				

Knox County--Third District--1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Stream, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades
1	George W. Essex....	Soperville....	113	4	1 Sh.	S.	B.		9,500	9,500	.....
2	Ross & Woodward....	Galesburg....	50	4	1	Ho.	S.		3,720	3,720	.....
3	Reid & Pendergast....	Soperville....	93	4	1	Ho.	S.		3,580	3,580	.....
4	Albert Wertsen....	Galesburg....	40	4	1	Ho.	S.		1,800	1,800	.....
5	G. W. Corsepilus....	.....	30	3.6	1	Ho.	M.		370	370	.....
6	James McGovern....	Oneida....	20	4	6	Sl.			2,306	2,306	.....
7	George Clifford....	.....	20	4	6	Sl.			2,706	2,706	.....
8	Charles Morgan....	.....	30	4	6	D.	Hd.		400	400	.....
9	Bankston Bros....	Wataga....	30	4	6	Sl.			4,360	4,360	.....
10	Taylor Bros....	.....	30	4	6	Sh.	Ho.		3,000	3,000	.....
11	N. E. Anderson....	.....	20	4	6	Sl.			4,064	4,064	.....
12	John Jacobson & Son	.....	30	4	6	D.	Hd.		700	700	.....
13	Peter Linbeck....	.....	30	4	6	Sl.	Ho.		880	880	.....
14	Louis Nordeen....	.....	45	4	6	Sl.	Ho.		800	800	.....
15	Ben Morgan....	.....	30	4	6	Sl.			570	570	.....
16	James Nelson....	Knoxville....	40	2.6	2	Sh.			1,650	1,650	.....
17	Z. F. Dudley....	.....	30	2.6	2	Sh.			1,600	1,600	.....
18	Olie Walburg....	.....	30	2.6	2	D.	Hd.		250	250	.....
19	John Welsh....	Williamsfield.	40	4	6	Sl.	Ho.		1,240	1,240	.....
20	Lundeen & Priest....	.....	40	4	6	Sl.			400	400	.....
21	Edward Crozier....	Etherley....	45	4	6	D.	Hd.		388	388	.....
22	Edward Peterson....	.....	45	4	6	Sl.			100	100	.....
23	William Cotta....	.....	45	4	6	Sl.			120	120	.....
24	A. P. Boyer....	.....	45	4	6	Sl.			120	120	.....
25	Edward Boyer....	.....	45	4	6	Sl.			175	175	.....
26	Joseph Thompson....	.....	45	4	6	Sl.			750	750	.....
27	C. P. Wagner....	Victoria....	30	4	6	Sl.			120	120	.....
28	S. A. Westfall....	.....	30	4	6	Sl.			320	320	.....
29	Rowman Bros....	Yates City....	50	4	6	Sh.	S.		1,280	1,280	.....
30	William Fish....	Appleton....	25	4	6	Sl.	Hd.		320	320	.....
31	Eric Herkstrom....	.....	25	4	6	Sl.			750	750	.....
32	Erlinger & Brown....	Elmwood....	25	4	6	Sh.			640	640	.....
33	Wm. Andres....	.....	30	4	6	Sl.			600	600	.....
34	Wm. Raffle & Son....	Farmington....	30	4	6	Sl.			240	240	.....
Totals.....									49,819	49,819	.....
Averages.....											.....

Whole number of openings reported in 1897. 29.

Number of new mines opened during the year. 11.

Number of mines exhausted or abandoned during the year. 6.

Whole number of openings reported for 1898. 34.

Knox County, 1898—Concluded.

Number.	VALUES.		EMPLOYEES.				WAGES.			Days of active operation.	ACCIDENTS.		Capacity of mine—tons.	
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners employed.	Other employes under ground.	All employes above ground.	Total employees.	Price paid per screened ton.		Paid monthly, semi-monthly or weekly.		Kegs of powder used.	Fatal.		Non-fatal.
							For hand-mining.	For machine-mining.						
1	\$1 25	\$11,875	20	1	2	23	\$0 75	.....	S-M.	225	450	.....	12,000
2	1 25	4,650	10	1	1	12	75	.....	.....	195	125	1	7,000
3	1 25	4,475	7	1	1	9	75	.....	.....	180	125	.....	7,000
4	1 25	2,250	6	.....	1	7	75	.....	.....	150	60	.....	3,000
5	1 25	462	4	.....	1	4	75	.....	.....	40	.....	.....	2,500
6	1 25	2,882	7	.....	1	8	75	.....	.....	170	.....	.....	4,000
7	1 50	4,059	7	.....	1	8	75	.....	M.	185	.....	.....	4,000
8	1 25	500	3	.....	.....	3	75	.....	S-W.	100	.....	.....	1,200
9	1 25	5,450	9	.....	1	10	75	.....	S-M.	200	.....	.....	6,000
10	1 12.5	3,375	12	1	1	14	75	.....	M.	150	.....	1	6,000
11	1 12.5	4,572	10	1	1	12	70	.....	S-M.	210	.....	.....	5,500
12	1 25	875	3	.....	.....	3	75	.....	M.	150	.....	.....	1,400
13	1 00	880	3	.....	.....	3	67.5	.....	.....	200	.....	.....	1,400
14	1 25	1,000	3	.....	.....	3	75	.....	S-M.	180	.....	.....	1,400
15	1 25	712	2	.....	.....	2	75	.....	.....	160	.....	.....	1,000
16	1 50	2,475	10	.....	1	11	87.5	.....	M.	140	.....	.....	2,800
17	1 50	2,400	6	.....	.....	7	1 00	.....	.....	190	.....	.....	2,000
18	1 50	375	3	.....	.....	3	87.5	.....	.....	80	.....	.....	800
19	1 00	1,240	3	.....	.....	3	75	.....	W.	230	.....	.....	1,500
20	1 00	400	3	.....	.....	3	75	.....	.....	100	.....	.....	1,200
21	87.5	339	4	.....	.....	4	75	.....	.....	70	.....	.....	1,500
22	87.5	87	2	.....	.....	2	75	.....	.....	50	.....	.....	600
23	1 00	120	2	.....	.....	2	75	.....	.....	60	.....	.....	600
24	87.5	105	2	.....	.....	2	75	.....	.....	60	.....	.....	600
25	1 00	175	2	.....	.....	2	75	.....	.....	80	.....	.....	600
26	87.5	656	4	.....	.....	4	62.5	.....	.....	100	.....	.....	2,000
27	1 00	120	2	.....	.....	2	75	.....	.....	60	.....	.....	600
28	1 00	320	3	.....	.....	3	75	.....	.....	85	.....	.....	1,000
29	1 25	1,600	4	1	1	6	75	.....	.....	150	.....	.....	2,200
30	1 00	320	3	.....	.....	3	75	.....	.....	80	.....	.....	1,200
31	1 00	750	4	.....	.....	4	75	.....	.....	110	.....	.....	1,800
32	1 25	800	4	.....	1	5	75	.....	.....	100	.....	.....	1,800
33	1 25	750	4	.....	1	5	75	.....	.....	100	.....	.....	1,700
34	1 25	300	2	.....	1	3	75	.....	.....	100	.....	.....	750
.....		\$61,349	173	6	17	196	.....		.....	.....	760	2	88,650
\$1 23		.....	.....	.....	.....	.....	\$0 75.3		.....	131	.....	.....	.....

McDonough County—Third District—1898.

Number.	Name of Operator,	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades.
1	Egerton Coal Co.....	Colchester...	53	2 9	12	Sh.	S.	M.	20,000	18,000	2
2	Rippetoe & Rundle....	"	56	2 9	12	"	"	"	16,050	16,050	...
3	Colchester C. & M.Co.	"	53	2 9	12	"	"	"	18,260	17,000	1
4	Peter Whalen.....	"	35	2 6	12	"	Ho.	"	1,580	1,580	...
5	D. B. Sherbine.....	"	30	2 6	12	"	"	"	1,200	1,200	...
6	Leonas Neece.....	"	35	2 4	12	Sl.	Hd.	"	600	600	...
7	William Robison.....	"	40	2 4	12	"	"	"	600	600	...
8	William Porter.....	Macomb.....	40	2 4	12	Sh.	Ho.	"	700	700	...
9	John Berry.....	"	40	2 4	12	"	"	"	650	650	...
10	A. E. Wilson.....	"	30	2 4	12	Sl.	"	"	500	500	...
11	William Berry.....	"	30	2 4	12	"	"	"	200	200	...
12	Wm. Hodgson.....	Colchester...	40	2 4	12	D.	Hd.	"	300	300	...
13	Amos Abbin.....	"	30	2 4	12	"	"	"	700	700	...
14	Wm. Kipling.....	"	30	2 4	12	"	"	"	840	840	...
15	Newman Foster.....	"	50	2 4	12	Sh.	Ho.	"	320	320	...
16	Richard Laity.....	"	30	2 4	12	Sl.	Hd.	"	100	100	...
17	Ely Hilliard.....	"	39	2 4	12	D.	"	"	350	350	...
18	George Polonus.....	"	40	2 4	12	"	"	"	215	215	...
19	Michael Humes.....	"	40	2 4	12	"	"	"	275	275	...
20	John Zimmerman.....	"	40	2 4	12	"	"	"	455	455	...
21	Wash Entwistle.....	"	40	2 4	12	"	"	"	420	420	...
22	John McCord.....	"	40	2 4	12	"	"	"	325	325	...
23	Hillary Bros.....	"	40	2 4	12	"	"	"	1,760	1,760	...
24	Henry Martin.....	"	40	2 4	12	"	"	"	200	200	...
25	A. Swanson.....	"	40	2 4	12	Sh.	Ho.	"	322	322	...
26	Wm. Dickerson.....	"	40	2 4	12	Sl.	Hd.	"	650	650	...
27	Louis Atkinson.....	"	40	2 4	12	D.	"	"	525	525	...
28	George Carrison.....	"	40	2 4	12	Sl.	"	"	220	220	...
29	Wm. Martin.....	"	40	2 4	12	D.	"	"	410	410	...
30	Baird & Sons.....	"	40	2 4	12	"	"	"	1,170	1,170	...
31	John Wilson.....	"	40	2 4	12	"	"	"	1,055	1,055	...
32	Isaac Stone.....	"	30	2 4	12	Sh.	Ho.	"	100	100	...
33	Hugh McDonald.....	"	30	2 4	12	"	"	"	300	300	...
44	Wm. Williams.....	"	40	2 4	12	D.	Hd.	"	210	210	...
35	L. H. Vest.....	"	30	2 4	12	Sh.	Ho.	"	400	400	...
36	F. M. Haines.....	"	30	2 4	12	D.	Hd.	"	200	200	...
37	Lowry Bros.....	"	30	2 4	12	"	"	"	400	400	...
38	Fergus Whalen.....	Tennessee	30	2 6	12	"	"	"	350	350	...
39	Wardell Bros.....	"	30	2 6	12	"	"	"	1,634	1,634	...
40	Frank Taylor.....	Blandinsville.	40	2 4	12	Sh.	Ho.	"	200	200	...
41	Joseph Dodgos.....	"	40	2 4	12	"	"	"	180	180	...
42	Wilson & Foster.....	"	40	2 4	12	"	"	"	380	380	...
43	Frank Burdick.....	Industry.....	35	2 4	12	"	"	"	450	450	...
41	Curry Teel.....	"	40	2 4	12	D.	"	"	320	320	...
45	Anthony Reynolds.....	"	40	2 4	12	"	"	"	210	210	...
46	J. Gilligan.....	"	40	2 4	12	"	"	"	260	260	...
47	Dick Jones.....	"	40	2 4	12	"	"	"	360	360	...
48	Wm. Baker.....	"	40	2 4	12	"	"	"	320	320	...
49	Link Willey.....	"	40	2 4	12	"	"	"	230	230	...
50	Wm. Stoneking.....	"	40	2 4	12	"	"	"	210	210	...
Totals.....									77,696	74,436	3
Averages.....											

Whole number of openings reported in 1897, 32.

Number of new mines or places opened during the year, 25.

Number of mines exhausted or abandoned during the year, 7.

Whole number of openings reported for 1898, 50.

McDonough County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.			WAGES.			Days of active operation.	Kegs of powder used.	ACCI- DEN'S		Capacity of mine— tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employes un- der ground.	All employes above ground.	Total employes.	Price paid per screened ton.				Paid monthly, semi- monthly or weekly		
							For hand- mining.	For machine- mining.				Fatal.		Non-fatal.
1	\$1.50	\$27,400	50	1	5	56	\$1.00		S-M.	280			24,000
2	1.50	21,346	54	1	5	60	1.00			208			25,000
3	1.50	22,862	55	1	5	61	1.00			265			24,000
4	1.50	2,370	6	1	1	8	1.00			170			2,000
5	1.50	1,800	5		1	6	1.00			150			2,000
6	1.50	840	3			3	1.00			150			1,200
7	1.50	840	3			3	1.00			150			1,200
8	1.50	980	4		1	5	1.00			140			1,400
9	1.50	919	4			4	1.00			140			1,300
10	1.50	700	4			4	1.00			140			1,000
11	1.50	280	4			4	1.00			60			900
12	1.50	420	2			2	1.00			125			600
13	1.50	980	3			3	1.00			175			1,100
14	1.50	1,176	4			4	1.00			175			1,200
15	1.50	448	2			2	1.00			125			800
16	1.50	140	2			2	1.00			40			600
17	1.50	490	2			2	1.00			150			600
18	1.50	268	1			1	1.00			200			320
19	1.50	343	2			2	1.00			100			750
20	1.50	568	3			3	1.00			125		1	1,000
21	1.50	588	3			3	1.00			120			1,000
22	1.50	487	3			3	1.00			120			800
23	1.50	2,200	4			4	1.00			220		2	2,000
24	1.50	280	2			2	1.00			100			600
25	1.50	402	2			2	1.00			200			500
26	1.50	812	3			3	1.00			200			1,000
27	1.50	656	3			3	1.00			120			1,200
28	1.50	275	2			2	1.00			120			900
29	1.50	574	3			3	1.00			140			1,400
30	1.50	1,468	3			3	1.00			245		1	1,400
31	1.50	1,318	4			4	1.00			240		1	1,400
32	1.50	125	2			2	1.00			80			400
33	1.50	420	2			2	1.00			140			600
34	1.50	294	2			2	1.00			130			550
35	1.50	560	2			2	1.00			150			700
36	1.50	250	2			2	1.00			100			600
37	1.50	500	4			4	1.00			100		1	1,200
38	1.50	490	2			2	1.00			140			800
39	1.50	2,207	5			5	1.00			200		2	2,200
40	1.50	250	3			3	1.00			140			450
41	1.50	225	2			2	1.00			110			500
42	1.50	475	4			4	1.00			200			500
43	1.50	720	3			3	1.00			160			800
44	1.50	480	2			2	1.00			150			700
45	1.50	315	2			2	1.00			150			600
46	1.50	390	2			2	1.00			150			550
47	1.50	540	3			3	1.00			150			700
48	1.50	480	2			2	1.00			150			650
49	1.50	345	2			2	1.00			150			650
50	1.50	315	2			2	1.00			150			500
.....		\$103,602	293	4	18	315	.....	.....	.....	.....	1	2	116,020
\$138.2		.....	.....	.....	.....	.....	\$1.00	.....	.....	152	.....	.....	.....

Schuyler County—Third District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grade.
1	W. Kerr	Rushville....	48	4	5	Sh.	St.	B.	2,760	2,760	.....
2	William Portwood	"	38	5	5	Dr.	Hd.	"	1,890	1,890	.....
3	William Cummings	"	38	5	5	"	"	"	1,050	1,050	.....
4	John Hodge	"	38	5	5	"	"	"	1,870	1,870	.....
5	A. Winner	Ray	50	2.3	3	"	"	M.	540	540	.....
6	Rufus Porter	"	50	2.3	3	"	"	"	740	740	.....
7	David Fry	"	50	2.3	3	"	"	"	550	550	.....
8	Hettrick & Wetmore	Frederick....	10	5	5	St.	"	B.	1,484	1,484	.....
9	A. L. Curry	"	50	2.6	2	Dr.	"	M.	225	225	.....
10	James Peel	"	40	2.6	2	"	"	"	40	40	.....
Totals.....									11,149	11,149	.....
Averages.....											.....

Whole number of openings reported in 1897, 11.

Number of mines exhausted or abandoned during the year, 1.

Whole number of openings reported for 1896, 10.

Warren County—Third District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grade.
1	Charles F. McCartney	Alexis	70	4	1	Sh.	S.	B.	3,100	2,900	200
2	Cook & Gilmore	"	40	4	1	"	Ho.	"	2,000	2,000	.....
3	John Sineox	"	60	4	1	"	"	"	1,700	1,700	.....
4	Redmond & Murphy	Monmouth	55	3	3	"	"	M.	1,250	1,250	.....
5	John Selkirk	"	55	3	3	"	"	"	1,040	1,040	.....
6	Lafe Smith	Ayon	30	3	3	Dr.	Hd.	"	450	450	.....
7	R. Delaney	"	30	3	3	"	"	"	375	375	.....
8	Henry Hopkins	"	30	3	3	"	"	"	250	250	.....
9	Thomas Wearmouth	Youngstown ..	30	3	3	"	"	"	240	240	.....
10	R. Mace	"	30	3	3	"	"	"	220	220	.....
11	B. Lewrance	"	30	3	3	"	"	"	240	240	.....
12	Joseph Simpson	"	30	3	3	"	"	"	60	60	.....
13	Samuel White	"	30	3	3	"	"	"	200	200	.....
14	J. Wilson	Swan Creek ..	30	3	3	"	"	"	120	120	.....
15	Bryner Bros	Roseville	30	3	3	Sl.	"	"	850	850	.....
16	Thomas Lee	Youngstown ..	30	3	3	Dr.	"	"	150	150	.....
Totals									12,245	12,045	200
Averages.....											.....

Whole number of openings reported in 1897, 14.

Number of new mines or places opened during the year, 8.

Number of mines exhausted or abandoned during the year, 6.

Whole number of openings reported for 1896, 16.

Schuyler County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.			WAGES.		Paid monthly, semi-monthly or weekly.	Days of active operation.	Kegs of powder used.	ACCI- DEN'S		Capacity of mine— tons.	
	Av. value of lump per ton at the mine.	Aggregate value of total product.	No. of miners em- ployed.	Other employes un- der ground.	All employes above ground.	Total employes.	Price paid per screened ton.				Fatal.	Non-fatal.		
							For hand- mining.							For machine- mining.
1	\$1 25	\$3,450	5	.....	1	6	\$0 60	.....	W.	230	150	.....	6,000
2	1 25	2,362	4	.....	.....	4	60	.....	.....	100	50	.....	5,400
3	1 12.5	1,181	4	.....	1	5	55	.....	.....	100	75	.....	3,500
4	1 00	1,870	3	.....	1	4	60	.....	.....	240	70	.....	2,500
5	1 25	675	3	.....	.....	3	65	.....	.....	170	.....	.....	900
6	1 25	925	3	.....	.....	3	75	.....	.....	180	.....	.....	1,200
7	1 25	686	3	.....	.....	3	75	.....	.....	150	.....	.....	1,000
8	1 00	1,484	5	.....	2	7	75	.....	.....	150	.....	.....	3,000
9	1 00	225	3	.....	.....	2	90	.....	.....	100	.....	.....	700
10	1 25	50	1	.....	.....	1	90	.....	.....	40	.....	.....	300
.....		\$12,908	32	.....	5	37	.....		.....	.....	345	.....	24,500
\$1 15.7		.....	.....	.....	.....	.....	\$0 63.9	.....	.....	146	.....	.....	.....

Warren County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.				WAGES.			Days of active operation.	Kegs of powder used.	ACCI- DEN'S		Capacity of mine— tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per screened ton.		Paid monthly, semi- monthly or weekly			Fatal.	Non-fatal.	
							For hand- mining.	For machine. mining.						
1	\$1 25	\$3,725	5	.....	1	6	\$0 65	.....	S. M.	250	200	.....	.....	4,000
2	1 25	2,500	5	.....	1	6	75	.....	.....	200	170	.....	.....	3,500
3	1 25	2,125	4	.....	1	5	75	.....	.....	170	125	.....	.....	3,000
4	1 75	2,187	4	.....	1	5	1 12.5	.....	.....	240	.....	.....	.....	1,500
5	1 75	1,820	5	.....	1	6	1 12.5	.....	.....	210	.....	.....	.....	1,500
6	1 75	787	4	.....	.....	4	1 25	.....	W.	120	.....	.....	.....	800
7	1 75	655	3	.....	.....	3	1 25	.....	.....	140	.....	.....	.....	600
8	1 75	437	4	.....	.....	4	1 25	.....	.....	80	.....	.....	.....	800
9	1 75	420	3	.....	.....	3	1 25	.....	.....	120	.....	1	.....	500
10	1 75	385	3	.....	.....	3	1 25	.....	.....	120	.....	.....	.....	500
11	1 75	420	3	.....	.....	3	1 25	.....	.....	120	.....	.....	.....	500
12	1 75	105	1	.....	.....	1	1 25	.....	.....	70	.....	.....	.....	250
13	2 00	400	.....	.....	.....	.....	1 25	.....	.....	100	.....	.....	.....	550
14	2 00	240	4	.....	.....	4	1 25	.....	.....	70	.....	.....	.....	480
15	2 25	1,912	4	.....	.....	4	1 25	.....	.....	200	.....	.....	.....	1,200
16	1 75	262	1	.....	.....	1	1 25	.....	.....	120	.....	.....	.....	400
		\$18,380	50	.....	5	55	.....	.....	.....	.....	495	.....	1	20,080
\$1 52.5		.....	.....	.....	.....	.....	\$1 24	.....	.....	145.6	.....	.....	.....	.....

Recapitulation by Counties—

COUNTY.	MINES.				PRODUCTS.				VALUES.			
	Number of mines.	Shipping mines.	Mines in local trade.	New mines.	Abandoned mines.	Total tons produced.	Tons of lump coal.	Tons of other grades.	Tons shipped.	Estimated capacity (in tons) of existing mines.	Average value per ton of lump at the mine.	Aggregate value of total product.
Brown	16 ..	16 3 ..				1,940	1,940	.....	.....	7,600	\$1 50	\$2,900
Fulton	87 16	71 17 12				563,397	435,310	128,087	492,599	1,007,050	1 02.9	501,423
Hancock....	4 1	3 ..				5,600	5,600	.....	4,200	8,600	1 45	8,120
Knox.....	34 ..	34 11 6				49,819	49,819	.....	.....	88,650	1 23	61,349
McDonough	50 3	47 25 7				77,696	74,436	3,260	52,460	116,020	1 38.2	103,602
Schuyler ...	10 1	9 .. 1				11,149	11,149	.....	540	24,500	1 15.7	12,908
Warren	16 ..	16 8 6				12,245	12,045	200	.....	20,080	1 52.5	18,380
Totals	217 21	196 64 32				721,846	590,299	131,547	549,799	1,272,500	.....	\$708,691
Averages..	.....	.....				.....	.....	.....	.....	.....	\$1 10.8	.....

Whole number of openings reported in 1897, 185.

Number of new mines or places opened during the year, 64.

Number of mines exhausted or abandoned during the year, 32.

Whole number of openings reported for 1898, 217.

Third District—1898.

EMPLOYEES.			Average number of days of active operation.	Number of kegs of powder used.	CASUALTIES.				WAGES.		MACHINES.		
Number of miners.	Number of other employees.	Total employés.			Killed.	Injured.	Widows.	Children.	Average price paid per screened ton.		Number of mines using machines.	Number of machines in use.	Total tons cut by machinery.
									For hand mining.	For machine mining.			
28	.....	28	96	.....	.....	.....	.....	\$1 00	.....	.....	.....	.....
901	238	1,139	144	20,001	3	7	2	1	* 71.6	\$0 31	1	2	10,412
25	5	30	130	.....	.....	.....	.....	.....	94.7	.....	.....	.....	.....
173	23	196	131	760	.....	2	.....	.....	75.3	.....	.....	.....	.....
293	22	315	152	.....	1	2	1	1	1 00	.....	.....	.....	.....
32	5	37	146	345	.....	.....	.....	.....	63.9	.....	.....	.....	.....
50	5	55	146	495	.....	1	.....	.....	92.4	.....	.....	.....	.....
1,502	298	1,800	.....	21,601	4	12	3	2	.....	.....	1	2	10,412
.....	.....	.....	135	.....	.....	.....	.....	.....	\$0 83.4	\$0 31	.....	.....	.....

* Average price paid for mining 503,496 gross tons in Fulton county, 45 cents per ton.

FOURTH INSPECTION DISTRICT—1898.

Counties: Cass, Logan, Mason, McLean, Menard, Tazewell, Vermilion.

JOHN E. WILLIAMS, *Inspector*.

HON. DAVID ROSS, *Secretary*,

State Bureau of Labor Statistics, Springfield, Illinois:

SIR:—Statutory provision makes it obligatory upon the State Inspector of Mines to keep a detailed record of his services during the year, and to transmit the same to you in the form of an annual report. I herewith have the honor to submit the fifteenth annual report for the Fourth Inspection District for the fiscal year ending July 1, 1898. This report gives tabulated statements, by counties, of the number of mines operated during the year, giving the number of miners and other employés, the total output of all grades of coal, the average value of coal at the mine and the aggregate value of the total product, the number of shipping mines and of those operated for local trade only, the casualties in and around the mines, the average number of days of active operations, the quantity of powder used, the number of machines in use and the amount of coal cut by such machines, the estimated capacity of existing mines, assuming that they are operated full time: also, the geological number of each seam of coal.

I would suggest that there be a thorough revision of the present mining law, as the present one is ambiguous, contradictory, and defective in many respects. I desire to say that I have been very ably assisted in the performance of my duties in Vermilion county by the assistance of Mr. Daniel Reese, the county inspector of Vermilion county. He has faithfully carried out my instructions, and, as a result, the mines are in a safer and better sanitary condition than ever before. I am pleased to say that so far I have not been compelled to resort to litigation to enforce a compliance with the law. On the contrary, I have been treated very courteously by the miners and operators alike. Any suggestion I saw fit to offer for the health and safety of the workmen has been generally very readily complied with.

Abandoned Mines.—Mine No. 1 of the Kellyville Coal Company, which is situated midway between Westville and Grape Creek, on the Chicago & Eastern Illinois Railroad, was worked out and abandoned the 1st of May, 1898.

Mine No. 4 at Grape Creek, the property of the Grape Creek Coal and Coke Company, which has been in litigation for a number of years, was leased to

Perry Jumps, who operated it until April 20, 1898, when it was found unprofitable and abandoned.

A small mine situated near East Peoria, in Tazewell county, and operated by Samuel Becker for local trade, was abandoned early in the spring of 1898.

Mine No. 4 at Tilton, in Vermilion county, which was owned by the Consolidated Coal Company, became inundated with water during the excessive wet weather last spring. A strenuous and persistent effort was made to free the mine of water, so that it might be continued in operation. After the expenditure of a good deal of time and a large amount of money the water was removed, but it was found that from three to four feet of sediment had collected on the floor of the mine throughout the whole interior, which would require a vast sum of money to clean up, and, as the mine was about worked out any way, it was deemed best to abandon it. The miners' tools and a large amount of "T" iron track were lost.

Escapement Shafts.—The Little Coal and Commission Company, which operates a mine near Wesley, in Tazewell county, has sunk an escape shaft 110 feet in depth, which is connected with the hoisting shaft and is equipped with stairs, as required by law. All the miners enter and leave the mine through the escape shaft.

The East Peoria Coal Co. has completed its escape shaft and greatly improved the ventilation by discarding the furnace and placing a twelve-foot fan over the air shaft.

Messrs. Doering & Bort, who operate a small mine for local purposes at East Peoria, after considerable difficulty, have completed their escape shaft.

E. C. Sloan, lessee of a new mine at Hawley's station, four miles south of Pekin, has sunk a new escape shaft 100 feet in depth, and otherwise improved the mine by placing automatic gates over the shaft at the top landing, putting bonnets on the top of the cages, also safety catches to the same, and putting a brake upon the drum.

The Brookside Coal Co. has connected the new No. 2 mine at Grape Creek with their escape shaft. This mine is ventilated with a small fan located inside the mine and operated by electricity, which produces a good current of air for the size of the fan, but will be found insufficient after the mine is more fully developed.

The Kellyville Coal Co. has placed the necessary hoisting machinery over the escape shaft at the No. 3 mine, at Westville, so that the workmen can be taken out there should it become necessary to do so.

Alfred C. Blake, who operates a small mine at East Peoria, has put steps in his escape shaft as required by law; also put bonnets and safety catches on the cages.

The Himrod Coal Company, which operates one of the largest and best equipped mines in the State, is now engaged in sinking a new escape shaft, which, when completed, will be the largest in the State, being 10x17 feet in the c compartments, one of which will be 10 feet square. A thirty-foot fan will be placed over this

compartment to produce the ventilation. The other compartment will be equipped with the necessary hoisting machinery and will be used solely for the escape of men in times of danger.

Millard Bros., of Peoria, have reopened the old slope at Wesley City, which has been idle for several years. The product of this mine is loaded on the Peoria & Pekin Union cars and shipped to Peoria and the northwest.

Old Mine Reopened.—A corporation known as the Illinois Coal Mining Company began operations in December, 1897, to reopen the old cooperative coal mine, situated one mile west of the Union depot in Bloomington. Several years ago a company of miners sunk the shaft to seam No. 6 of the geological section, finding that seam at a depth of 300 feet. It is nearly four feet thick, but of an inferior quality, and is overlaid with a poor roof. The enterprise proved unprofitable, and after a short period of operation the plant was abandoned and has remained so for twelve years. The present parties, in attempting to reopen the mine, encountered a great deal of difficulty, as a large amount of the curbing had become broken, letting the sides of the shaft cave in badly, which rendered it a dangerous as well as a costly undertaking. On May 1, 1898, they finally reached seam No. 5, which is 85 feet deeper than the one formerly worked. The coal is of superior quality and is overlaid with a splendid black slate roof. It is being opened on the long-wall system, for which it is admirably adapted, and, in the meantime, sinking will be continued to the seam still below the present one. The shaft will then have a depth of 540 feet and will have two workable seams of coal; the upper is four feet thick and the lower one three feet. Both seams will be developed at the same time. A splendid tower has been erected, which is designed to handle a large output, and is equipped with a pair of direct-acting engines, 18x36 inches, coupled to an 8-foot drum. Steam is generated by two two-flue boilers of a large pattern. Railroad facilities are had by a switch leading to the Big Four Railroad. A spur could be easily had from the Kansas City division of the C. & A. R. R., as the mine lies half way between that road and the Big Four. Mr. John Marland, an old and experienced manager, who owns stock in the mine, is the superintendent. The machinery was built in Danville and gives splendid satisfaction.

Fatal Accidents.—There have been 19 fatal accidents in this district during the past year, and following is a detailed account of each:

August 11, 1897, LaFayette Taylor, a miner, single, aged 20 years, employed by the Cass County Coal Company, Virginia, was killed while engaged in cleaning an entry near the bottom of the shaft. A large fall of roof caught him, breaking his neck and back. This mine had been shut down about nine months. The deceased was engaged in opening it up.

August 23, 1897, Christian Chittick, top-man, married, aged 53 years, employed by the Cass County Coal Company, Virginia, fell down the shaft and was instantly killed. The deceased pushed an empty car to the shaft and followed it through the gate; the car caught on the top of the guides and hung there; afterwards he came from the dump, going to the wrong side of

the shaft where there was no cage; the gate being open, he and the car fell to the bottom. He leaves a widow and six children, four of whom are dependent.

October 5, 1897, Andrew Killibrew, colored, machine helper, aged 38 years, was employed by the Himrod Coal Company, at their mine in Westville. While engaged in moving a machine he was struck by a fall of roof and sustained such serious injuries as to result in his death on the 11th of the same month. He leaves a widow, but no children.

October 28, 1897, at about 5:15 p. m., Toney Potts was killed by a shot of coal in room No. 9, in the fourth east entry, at the Pawnee mine of the Himrod Coal Company, Westville. Potts' roommate, Powell Vanson, says that while he was putting tools and oil in the box, Potts went into the room to fire, and very soon afterward the shot went off. On entering the room he found Potts lying down with blood running from him.

November 6, 1897, Frank Hicks, timberman, married, aged 38, employed by the Tallula Coal Company, Tallula, for nearly six years, and regarded as a very careful man, was killed. Deceased went into the back east entry off the first north in the morning, to put up a cross-bar near the face of the entry to catch a loose rock; he had carefully examined and sounded the rock before he commenced to work at it. The entry-man, Nelson P. Osterberg, had put up a piece of 2x4 with a prop under the north end of it, for his personal safety. Hicks commenced to cut a hole on the south rib to put a bar alongside of the 2x4, when the roof suddenly gave way and fell, crushing him so badly that he expired at 5 p. m. The accident happened at about 9:30 a. m.

There was a large smooth slip commencing near the center of the road and extending to the north rib and back near the face of the entry. There was a horse-back on the north rib, just where the clod fell. The entry-man says he did not notice any slip before the roof fell. James Hutton worked in the adjoining entry and was the second man to reach deceased after the accident; his statements were corroborative of the above. The mass of clod which fell was about 15 inches thick, 6 feet wide and 7 feet long. Deceased leaves a widow and five children, two of whom are old enough to care for themselves.

December 18, 1897, Jacob Rappe, a miner, aged 25 years, married, employed at the mine of the Citizen's Coal Company, at Lincoln, was instantly killed, at noon, by a blast of coal. He had lighted a shot at the same time that the party working in the adjoining room did; after hearing the report of a shot, which he believed was his own, he started into the room, intending to light a second shot. Just as he reached the face of his room, the first shot exploded, killing him instantly. He was a native of Germany and leaves an invalid widow and two small children dependent.

December 22, 1897, John Erickson, a miner, 45 years of age, single, employed at the No. 2 mine of the Kellyville Coal Co., at Westville, was killed by a fall of coal. Deceased and his partner were engaged in mining off a standing shot when they both realized their danger and desisted for a time; afterwards, Erickson concluded to try it again, notwithstanding the protest of his partner. *He had hardly started to work when the mass of coal suddenly gave way, catching him so as to cause death.*

December 23, 1897, John Nelson, a topman, aged 38 years, married, and employed by the McLean County Coal Co., Bloomington, was instantly killed by falling to the hard frozen ground from the trestle work that extends from the shaft to the engine chutes. Deceased was engaged in moving a car of coal when his feet suddenly slipped, causing him to fall. He leaves a widow and four children.

December 29, 1897, at 2:30 p. m., Thomas Biggs, a miner, aged 22 years, single, was killed by a fall of top coal in No. 2 room in the northeast main entry of the Himrod Coal Co.'s mine, Westville. He had been warned by the machine runner that it was dangerous, about 10 o'clock in the morning. Deceased lived with his parents near the mine.

January 14, 1898, Harry Miller, married, aged 27 years, employed by the Westville Coal Co., Westville, as a night driver, was fatally injured by a fall of rock about 10 o'clock at night, on the fourth south entry, east side, near room No. 16. Deceased had pulled a car of rock into the cross-cut between the third and fourth south entries, when he discovered that the car stood with the wrong end first; he decided to haul it out and unload it somewhere else, but found that the track was too close to a prop which held up a collar, on which rested considerable loose rock. He hunted for an axe to trim the prop so the car would pass and not disturb it; he was unable to find an axe and decided to take the chance of knocking out the prop, which he did, with the result as stated. He lived until 4 o'clock the next morning. He left a widow and one child, from whom he had been separated for some time; they are supposed to reside in Peoria. Although perfectly rational all the time after the accident he obstinately refused to divulge the whereabouts of any of his relatives.

February 15, 1898, James Hall, a miner, aged 17 years, working in the mine of the Colfax Coal Co., Colfax, was instantly killed by a fall of roof at about 8:30 a. m. He was working with Charles Campbell, an old and experienced miner. Deceased had just begun to mine off a standing shot when the roof gave way, crushing him to death. His partner had sounded the roof at that place about twenty minutes before the accident and stated that it sounded hard and solid.

March 8, 1898, John Patkus, a miner, single, aged 40 years, while at work in mine No. 3 of the Kellyville Coal Co., Westville, was crushed to death by a fall of roof. Deceased had worked in the mines for several years.

March 23, 1898, John Inglesby, a machine helper, single, aged 28 years, was caught by falling coal in the mine of the Westville Coal Co., Westville, at about 9 a. m. and was so seriously injured that death resulted in a few hours. Deceased neglected to examine or sound the coal face before he began work; the machine undercut a large piece of loose coal that fell over on him with the result as stated.

April 29, 1898, Evan Lloyd, a miner, married, aged 38 years, in the employ of the Catlin Coal Co., Catlin, was killed in a very singular manner. Deceased and his partner were walking out of the room behind a loaded car, which struck a prop which was standing near the track, knocking it out;

this let down a piece of loose rock, catching Lloyd's legs in such a manner as to sever one of the main arteries, causing death by hemorrhage. He leaves a widow and four children.

May 7, 1898, Joseph Riley, colored, single, aged 24, was killed by a fall of roof in the mine of the Glenburn Coal Company, Glenburn. Deceased knew the rock was unsafe to work under, as he had been warned of the danger by several different workmen, but paid no attention to their advice and continued to work away without attempting to make himself safe, until the rock gave way and crushed out his life.

May 12, 1898, Charles Fritz, a miner, single, aged 24 years, was instantly killed by a fall of roof in room No. 2, sixth south entry, on the west side, at the mine of the Westville Coal Company, Westville. The accident happened at 11:50 a. m. Deceased had been warned by his partner of the dangerous condition of the roof just a few minutes before it fell, but he replied that it would stay up until they could finish loading that car, but in less than five minutes the mass of rock let go, crushing him to death.

June 9, 1898, J. W. Broadbent, a miner, single, aged 53 years, employed in the No. 2 mine of the Brookside Coal Company, Grape Creek, was instantly killed by a fall of roof at the face of the second room on the first south entry, about 2:45 p. m. Thomas Bullough, his fellow workman, stated that he notified deceased to keep from under the rock and set up a prop, so as to make it safe, but he neglected to do so, when the rock, which was 8 feet long, 4 feet wide and 3 feet thick, fell on him with the result stated. He had worked in coal mines for forty years.

June 13, 1898, John Schlitzki, a miner, married, aged 28 years, employed by the Westville Coal Company, Westville, was instantly killed at 10 a. m. by a fall of rock at the face of room No. 3, on the sixth south entry, east side. Deceased had been warned of his danger just a short time prior to the accident by the driver and the men who worked beside him, but he paid no attention to their friendly advice. He leaves a widow and two children in Russia.

July 29, 1897, Jonathan Twaddle, a timberman, was killed in the mine of the Athens Coal Company, at Athens. Deceased and his assistant were engaged in timbering a bad piece of roof on the main entry, when a small piece of soapstone suddenly fell out, without warning, striking him in such a manner as to cause death. Deceased was 37 years of age and left a widow and one child dependent.

Respectfully submitted,

JOHN E. WILLIAMS,

Inspector Fourth District.

DANVILLE.

Fatal Casualties—Fourth District—1898.

Date.	Name.	Age.	Occupation.	Residence.	Married.	Widow.	Children.	Single.	Depend'nts	Cause of Accident.
1897.										
July 29	Jonathan Twaddle....	37	Timberman.	Athens.....	1	1	1	..	2	Falling roof.....
Aug. 11	LaFayette Taylor.....	29	Miner.....	Virginia.....	..	..	1	..	1	Falling roof.....
Oct. 23	Chris. Chittick.....	53	Topman.....	..	1	1	6	..	4	Falling down shaft..
Oct. 5	Andrew Killibrew....	38	Mach. help'r	Westville....	1	1	..	..	1	Falling roof.....
Oct. 28	Toney Potts.....	28	Miner.....	..	..	..	..	..	1	Premature blast.....
Nov. 6	Frank Hicks.....	38	Timberman.	Tallula.....	1	1	5	..	4	Falling roof.....
Dec. 18	Jacob Rappe.....	25	Miner.....	Lincoln.....	1	1	2	..	3	Premature blast.....
.. 22	John Erickson.....	45	..	Danville.....	..	..	..	1	1	Falling coal.....
.. 23	John Nelson.....	38	Topman.....	Bloomingt'n	1	1	4	..	5	Falling from trestle.
.. 29	Thomas Biggs.....	22	Miner.....	Westville....	..	..	..	1	1	Falling coal.....
1898.										
Jan. 14	Harry Miller.....	27	Driver.....	..	1	1	1	..	2	Falling roof.....
Feb. 15	James Hall.....	17	Miner.....	Colfax.....	..	..	..	..	1	Falling roof.....
Mar. 8	John Patkus.....	40	..	Westvills....	..	..	..	..	1	Falling roof.....
.. 23	John Inglesby.....	28	Mach. help'r	..	..	..	..	..	1	Falling coal.....
Apr. 29	Evan Lloyd.....	38	Miner.....	Catlin.....	1	1	4	..	5	Falling roof.....
May 7	Jos. Riley, colored....	24	..	Glenburn....	..	..	..	..	1	Falling roof.....
.. 12	Charles Fritz.....	34	..	Westville....	..	..	..	..	1	Falling roof.....
June 9	J. W. Broadbent.....	53	..	Grape Creek..	..	..	..	..	1	Falling roof.....
.. 13	John Schlitzki.....	28	..	Westville....	1	1	2	..	3	Falling roof.....
	Totals.....				9	9	25	10	29	

Total fatal casualties—19.

Recapitulation of Fatal Casualties—Fourth District—1898.

Residence.	No.	Occupation.	No.	Nature of Casualty	No.	Colliery.	No.
Athens.....	1	Driver.....	1	Falling coal.....	3	Athens Coal Co.....	1
Bloomington..	1	Mach. helpers	2	Falling down shaft	1	Brookside Coal Co....	1
Catlin.....	1	Miners.....	12	Fall'g from trestle.	1	Cass Co. Coal Co.....	2
Colfax.....	1	Timbermen...	2	Falling roof.....	12	Catlin Coal Co.....	1
Danville.....	1	Topmen.....	2	Premature blast...	2	Colfax Coal Co.....	1
Glenburn.....	1	..	..	..	..	Glenburn Coal Co.....	1
Grape Creek..	1	..	..	..	..	Himrod Coal Co.....	3
Lincoln.....	1	..	..	..	..	Kellyville Coal Co....	2
Tallula.....	1	..	..	..	..	Lincoln Coal Co.....	1
Westville.....	8	..	..	..	..	McLean Co. Coal Co..	1
Virginia.....	2	..	..	..	..	Tallula Coal Co.....	1
		..	..	..	..	Westville Coal Co....	4
Totals.....	19		19		19		19

Non-Fatal Casualties—Fourth District—1898.

Date.	Name.	Age.	Residence.	Married.	Single.	Children.	Dependents.	Character of Injury.	Value Lost.
1897.									
July 5	Alvis Schniber...	33	Lincoln.....	1	...	3	4	Ankle sprained	...
Aug. 2	William Ryan...	45	Chenoo.....	1	...	...	1	Back injured	...
" 5	Thomas Reardon.	40	Decatur.....	1	...	5	6	Body injured	...
" 6	Gustoph Dietrich	34	.....	1	...	4	5	Body injured	...
" 31	Edgar Jett.....	28	Niantic.....	1	...	1	2	Finger injured	...
Sept. 18	John Dolan.....	47	Westville.....	1	...	1	...	Arm broken	...
" 23	Wm. Dansvity...	30	Decatur.....	1	...	3	4	Body injured	...
" 24	Dom. Fulzenzi...	40	Niantic.....	1	...	5	6	Finger injured	...
" 28	Cooens Rubels...	45	.....	1	...	1	...	Body burnt	...
Oct. 4	John Williams...	21	Westville.....	1	...	1	...	Leg broken	...
" 6	Adam Malinowski	35	Decatur.....	1	...	3	4	Body injured	...
" 7	Frank Woods...	23	Niantic.....	1	...	2	3	Body injured	...
" 13	Fred Hible.....	19	Grape Creek	1	...	1	...	Thumb injured	...
" 13	S. Leconte.....	23	Westville.....	1	...	1	...	Hand injured	...
" 14	Chris Elenfelt...	45	Danville.....	1	...	4	5	Arm broken	...
" 20	Jacob Kloss.....	53	Westville.....	1	...	1	2	Finger injured	...
" 28	Frank Thompson	24	Danville.....	1	...	1	...	Leg broken and head injured	...
Nov. 1	Thos. Cokely...	27	Jacksonville	1	...	...	...	Fingers injured	...
" 4	A. McDaniel.....	20	Mt. Pulaski...	1	...	1	...	Leg broken, compound	...
" 5	John Willigram...	41	Petersburg...	1	...	5	6	Arm injured	...
" 6	Albert Swartz...	45	East Peoria...	1	...	5	6	Leg broken	...
" 8	Peter Johnson...	40	Danville.....	1	...	4	5	Leg broken	...
" 15	Lewis Droskasky	...	Westville.....	1	...	1	...	Foot crushed	...
" 16	Martin Reynolds	26	.....	1	...	1	...	Foot crushed	...
" 18	Wm. Hamilton...	38	.....	1	...	3	4	Foot injured	...
Dec. 3	Chas. Brozetti...	32	.....	1	...	1	...	Leg injured	...
" 6	F. Ham'nstrovell	25	Danville.....	1	...	1	...	Body injured	...
" 6	Benj. Feldman...	50	Lincoln.....	1	...	8	9	Ankle injured	...
" 6	Juli's Reynolds	38	Decatur.....	1	...	5	6	Leg broken	...
" 9	V. Martin.....	24	Westville.....	1	...	1	...	Ankle dislocated	...
" 22	A. Alesomrini...	30	Niantic.....	1	...	1	...	Body injured	...
" 31	Frank Patkus...	...	Westville.....	1	...	1	...	Leg broken	...
" 31	F. Patkus.....	40	.....	1	...	1	...	Foot injured	...
1898.									
Jan. 4	Jesse Humble...	25	Danville.....	1	...	2	3	Back and leg injured	...
" 5	J. Englehart...	28	Mt. Pulaski...	1	...	1	...	Body injured	...
" 10	George Smith...	27	Danville.....	1	...	1	...	Body injured	...
" 20	Gottfried Reich	64	Decatur.....	1	...	6	7	Ribs broken	...
" 27	Edward Donnelly	60	Chenoo.....	1	...	1	2	Hip bone broken	...
" 28	Fred Felgenham	35	Danville.....	1	...	3	4	Leg broken	...
" 29	S. Harris.....	28	Grape Creek	1	...	1	...	Leg, back and head injured	...
Feb. 1	Frank Reagh...	28	Colfax.....	1	...	1	...	Body injured	...
" 1	John Hyott.....	38	.....	1	...	3	4	Body injured	...
" 1	Edward Eckland	24	.....	1	...	1	...	Body injured	...
" 11	George Potter...	37	Fairmount...	1	...	1	...	Body injured	...
" 14	John Spiriling...	40	Danville.....	1	...	3	4	Legs injured	...
" 14	C. E. Robinson...	21	Colfax.....	1	...	3	4	Body injured	...
" 17	Patrick Burns...	41	Fairmount...	1	...	1	...	Foot broken	...
" 18	George Gurick...	24	Westville.....	1	...	1	...	Ankle broken	...
" 19	W. G. Birdsall...	33	.....	1	...	2	3	Finger broken	...
" 28	Charles Rigdon...	40	.....	1	...	5	6	Arm broken	...
" 28	Wm. McCormack	32	.....	1	...	1	...	Back injured	...
April 7	Frank Woods...	23	Niantic.....	1	...	2	3	Fingers injured	...
" 8	Aug. Rostek...	16	Decatur.....	1	...	1	...	Ribs broken	...
" 10	Fred Sturbe...	26	Danville.....	1	...	1	...	Hips injured	...
" 14	B. F. Meeker...	35	.....	1	...	1	...	Collar bone broken	...
" 29	M. Stefani.....	27	Fairmount...	1	...	1	...	Hand injured	...
May 19	Lew Taylor.....	30	Danville.....	1	...	1	...	Hand injured	...
" 20	Wm. Chatman...	16	Westville.....	1	...	1	2	Leg injured	...
" 21	Jacob Effner...	16	Danville.....	1	...	1	...	Leg broken	...
" 25	Charles Bernsk...	42	Grape Creek	1	...	4	5	Back and hips injured	...
June 4	Charles Lekaw...	42	Westville.....	1	...	5	6	Back injured	...
" 6	Bert O'Brien...	30	.....	1	...	1	2	Foot injured	...
" 10	Martin Anderson	31	.....	1	...	1	...	Foot injured	...
" 13	Tony Arnish...	43	.....	1	...	1	...	Foot injured	...

Non-Fatal Casualties—Fourth District—Concluded.

Date.	Name.	Age.	Residence.	Married.	Single.	Children.	Dependents.	Character of Injury.	Time lost—days.
1898.									
June 14	Omev Stearns.....	25	Grape Creek	1				Arm and hip injured	29
.. 22	Richard Roberts..	24			1			Cheek bone broken.....	60
.. 22	Edward Dunlap..	28	Westville....		1			Shoulder injured	20
.. 23	Peter Rolice.....	22	Danville....		1			Head injured	15
	Totals			36	32	101	134		

* Not recovered July 1, 1898.

† Foot amputated.

‡ Permanently injured.

Total men injured.....	92
Not reported July 1, 1898.....	1
Not reported	24
Number recovered.....	67
Total time lost by men recovered.....	2,988 days.
Average time lost per man recovered.....	44.6

Recapitulation of Non-Fatal Casualties—Fourth District—1898.

Residence.	No.	Occupation.	No.	Nature of Casualty	No.	Colliery.	No.
Chenoa	2	Cager	1	Blown out shot....	3	C. & K. C. Coal Co...	1
Colfax	4	Drivers	10	Cage.....	1	Colfax Coal Co.....	4
Danville	13	Laborer	1	Falling coal	9	Consolidated Coal Co	3
Decatur	7	Loaders	5	Falling in air shaft	1	Davis Coal Co.....	2
East Peoria ..	1	Mach. helpers	2	Falling rock	31	Decatur Coal Co....	13
Fairmount ..	3	Mach. runner.	1	Falling coal.....	1	Economy Coal Co....	2
Grape Creek ..	5	Miners.....	42	Fire damp.....	1	Hilliards	1
Jacksonville ..	1	Pit boss	1	Gas explosion	2	Himrod Coal Co....	6
Lincoln	2	Roadmen	2	Machine	1	Kellyville Coal Co..	15
Mt. Pulaski...	2	Spragger	1	Machine truck	1	Lincoln Coal Co....	2
Niantic	6	Topman	1	Pick	1	Pawnee Coal Co....	8
Petersburg ..	1	Trapper	1	Pit cars	13	Union Coal Co.....	2
Westville.....	21	Not reported.	24	Premature blasts..	1	Westville Coal Co...	9
Not reported.	24			Windlass	1	Not reported.....	24
				Not reported	25		
Totals	92		92		92		92

Table showing the Nature of Injuries, Number of Persons Injured, Dependents, Time Lost, with Averages and Percentages—Fourth District.

NATURE OF INJURIES.	Number.	Married.	Single.	Dependents.	TIME LOST.		Per cent of injuries.
					Total days.	Average days.	
Ankles injured.....	4	2	2	13	219	50.5	5.8
Arms broken.....	3	2	1	11	150	50	4.4
Arms injured.....	1	1		6	12	12	1.0
Arms and hips injured.....	1	1			20	20	1.0
Backs injured.....	5	4	1	15	175	35	7.5
Bodies injured.....	15	8	7	31	612	40.8	22.8
Cheek bone broken.....	1		1		60	60	1.0
Collar bone broken.....	1	1			60	60	1.0
Feet crushed.....	3	1	2		93	31	4.4
Feet injured.....	5	3	2	6	241	48.2	7.5
Fingers injured.....	7	5	2	16	181	25.9	10.3
Hands injured.....	3	1	2		45	15	4.4
Heads injured.....	1		1		20	20	1.0
Hips injured.....	1		1		40	40	1.0
Hip bone broken.....	1	1		2			1.0
Legs broken.....	9	4	5	21	716	79.6	13.2
Legs injured.....	4	1	3	6	174	43.5	5.8
Ribs broken.....	2	1	1	7	150	75	2.9
Shoulders injured.....	1		1		20	20	1.0
Not reported.....	24						
Totals, averages and percentages.....	92	36	32	134	2,988	44.6	100.00

Cass County—Fourth District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grade.
1	Cass County Coal Co.	Virginia	215	2.10	5	Sh.	S.	M.	450	300	1
2	Chris Nelson	Chandlerville	30	2.10	5	Sh.	H.	B.	950	950	0
3	J. S. & G. S. Russell.	Ashland	205	2.6	5	Sh.	S.	M.	1,500	1,200	3
	Totals.....								2,900	2,450	4
	Averages.....										

Whole number of openings reported in 1897, 4.

Number of mines exhausted or abandoned during the year, 1.

Whole number of openings reported for 1898, 3.

Logan County—Fourth District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grade.
1	Citizens' Coal M. Co.	Lincoln	285	5	5	Sh.	S.	B.	75,010	48,430	26
2	Union Coal Mining Co.	Mt. Pulaski...	360	4	5	Sh.	S.	B.	21,635	15,420	6
3	Lincoln Coal Co	Lincoln	272	5.4	5	Sh.	S.	B.	81,290	54,192	27
	Totals.....								177,935	118,042	59
	Averages										

Whole number of openings reported in 1897, 3.

Whole number of openings reported for 1898, 3.

Cass County, 1898—Concluded.

No.	VALUES.		EMPLOYEES.				WAGES.			Days of active operation.	Kegs of powder used.		ACCI- DENTS		Capacity of mine— tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly.		Fatal.	Non-fatal.			
							For hand- mining.	For machine- mining.							
1	\$1 65	\$570	7	2	2	11	\$1 00	.....	S. M.	150	10	2	.....	10,000
2	1 75	1,662	3	.....	1	4	62.5	.....	W.	120	40	.....	.....	5,000
3	1 50	1,950	12	2	12	16	90	.....	S. M.	100	.....	.....	.....	8,000
.....	.....	\$4,182	22	4	5	31	.....	.....	.....	.....	50	2	.....	24,000
.....	\$1 61.5	.....	.....	.....	.....	.....	\$0 82.5	.....	.....	123	.....	.....	.....	.....

Logan County, 1898—Concluded.

Number.	VALUES.		EMPLOYEES.				WAGES.			Days of active operation.	Kegs of powder used,		ACCI- DENTS		Capacity of mine— tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employé's un- der ground.	All employé's above ground.	Total employé's.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly.		Fatal.	Non-fatal.			
							For hand- mining.	For machine- mining.							
1	\$1 10	\$73,208	75	14	11	100	\$0 42.5	.....	S. M.	200	2,480	1	2	125,000
2	1 00	18,527	30	4	5	39	50	.....	.....	300	1,200	.....	2	45,000
3	90	62,321	80	28	11	119	42.5	.....	..	215	2,500	..	2	120,000
.....	.....	\$154,056	185	46	27	258	.....	.....	.....	.....	6,180	1	6	290,000
.....	\$0 99.5	.....	.....	.....	.....	.....	\$0 43.4	.....	.....	238	.....	.....	.....	.....

Macon County—Fourth District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades
1	Decatur Coal Co. No. 1	Decatur	612	4	5	Sh.	S.	M.	99,462	75,000	24,462
2	" " No. 2	" "	614	4	5	Sh.	S.	M.	111,602	80,000	31,602
	" " No. 2	Niantic.....	365	5	5	"	"	B.	89,200	75,887	13,313
	Totals								300,264	230,887	69,377
	Averages.....										

Whole number of openings reported in 1897. 3.

Whole number of openings reported for 1898. 3.

McLean County—Fourth District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades
1	McLean Co. Coal Co..	Bloomington..	541	*	2&5	Sh.	S.	M.	130,000	110,000	20,000
2	Colfax Coal & Min.Co.	Colfax	400	5	6	"	"	B.	31,094	20,577	10,517
3	Davies Coal Co.....	Chenoa	275	4.8	6	"	"	"	10,500	8,000	2,500
	Totals.....								171,594	138,577	33,017
	Averages.....										

* Upper seam, 4 feet thick, 55 cents per gross ton; lower seam, 3 feet thick, 65 cents per gross ton.

Whole number of openings reported in 1897. 3.

Whole number of openings reported for 1898. 3.

Macon County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.				WAGES.			Days of active operation.	Kegs of powder used.		ACCI- DEN'TS		Capacity of mine— tons.
	Av. value of lump per ton at the mine.	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly.		Fatal.	Non-fatal.			
							For hand- mining.	For machine- mining.							
1	\$1 20	\$107,123	100	15	6	121	\$0 50	.....	W.	308	.....	.....	3	150,000
2	1 20	118,121	110	18	7	135	50	.....	.....	308	.....	.....	4	150,000
3	78	64,517	72	10	6	88	40	.....	.....	225	3,596	.....	4	120,000
.....	.....	\$289,761	282	43	19	344	.....	.....	.....	.....	3,596	.....	11	420,000
.....	\$1 06	.....	.....	.....	.....	.....	\$0 46.6	.....	.....	280	.....	.....	.....	.....

McLean County, 1898—Concluded.

Number.	VALUES.		EMPLOYEES.				WAGES.			Days of active operation.	Kegs of powder used.		ACCI- D'NTS		Capacity of mine— tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly		Fatal.	Non fatal.			
							For hand mining.	For machine mining.							
1	\$1 15	\$142,500	200	25	30	255	*	.....	W.	250	15	1	6	200,000
2	1 15	28,589	25	10	9	44	\$0 42	.....	S.M.	260	1,205	1	2	50,000
3	1 70	16,725	15	3	4	22	55	.....	.....	290	600	.....	2	25,000
.....	.....	\$187,814	240	38	43	321	.....	.....	.....	.....	1,820	2	10	275,000
\$1 18 2	.....	.....	.....	.....	.....	.....	\$0 58.3	.....	.....	267	.....	.....	.....	.....

Menard County—Fourth District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades
1	Athens Mining Co....	Athens	200	5.6	5	Sh.	S.	*B.	83,981	42,667	41,314
2	Chicago & K. C. Co.	Petersburg. .	155	5.6	5	Sh.	S.	B.	58,335	34,601	23,734
3	Wabash Coal Co. No.2	Athens	187	5.6	5	Sh.	S.	B.	80,000	57,800	22,200
4	Tallula Coal Co.	Tallula	185	5.6	5	Sh.	S.	B.	24,304	22,508	1,796
5	William Parkin.....	Sweetwater ..	170	5.6	5	Sh.	Ho.	B.	3,068	2,151	917
6	South Mountain C.Co.	Petersburg. .	85	6	5	Sl.	S.	B.	4,646	4,646	.....
7	William Denton	"	60	6	5	Sh.	Ho.	B.	2,035	2,035	.....
8	F. M. Miller.....	Tice	60	5.6	5	Sh.	Ho.	B.	287	272	15
9	M. A. Hohimer	Petersburg. .	85	6	5	Sh.	S.	B.	954	954	.....
10	Greenview C. Min.Co.	Greenview ...	100	6	5	Sh.	Ho.	B.	56,550	45,000	11,550
Totals									314,160	212,634	101,526
Averages											

Both.

Whole number of openings reported in 1897, 11.

Number of mines exhausted or abandoned during the year, 1.

Whole number of openings reported for 1898, 10.

Tazewell County—Fourth District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades
1	East Peoria Coal Co..	East Peoria ..	85	4	5	Sl.	S.	B.	16,250	13,550	2,700
2	E. C. Sloan	Pekin.	100	5	5	Sh.	S.	B.	7,500	7,500	.....
3	A. C. Blake	East Peoria..	50	4.4	5	Sh.	S.	B.	20,000	14,806	5,194
4	Bohlender Bros.....	Pekin.	120	4.4	5	Sh.	S.	B.	6,035	6,035	.....
5	King & Grossweiler..	"	130	5.2	5	Sh.	S.	B.	1,600	1,440	160
6	Gustave Gebelhausen	East Peoria ..	90	4.4	5	Sh.	S.	B.	529	529	.....
7	Rusche Bros.....	"	65	4.4	5	Sl.	Ho.	B.	1,735	1,735	.....
8	Groveland Coal Co..	"	50	4	5	Sh.	S.	B.	3,106	2,706	402
9	Millard Bros.....	Peoria	100	4.4	5	Sl.	S.	B.	1,900	1,500	300
10	Phillip Butler	East Peoria ..	85	4.6	5	Sh.	S.	B.	2,500	2,500	.....
11	L. Grant & Sons.....	Pekin.	100	4.5	5	Sh.	S.	B.	21,500	21,500	.....
12	Baker Bros.....	East Peoria ..	60	4.4	5	Sh.	Ho.	B.	1,950	1,950	.....
Totals									84,507	75,751	8,756
Averages											

Whole num'

in 1897, 12.

Number

the year, 1.

Number

the year, 1.

Whole

Menard County, 1898—Concluded.

Number.	VALUES.		EMPLOYEES.				WAGES.			Days of active operation.	Kegs of powder used.	ACCI- DENTS		Capacity of mine— tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly					
							For hand- mining.	For machine- mining.						
1	\$0 80	\$58,921	58	49	13	120	\$0 40.7	\$0 24	S-M.	163	1,785	1	2	240,000
2	76.5	35,987	80	14	13	107	40.7	.....	.....	150	2,004	..	1	150,000
3	70	48,230	70	16	10	96	40.7	.....	.....	180	3,200	..	1	120,000
4	83	19,159	25	5	7	37	48.7	.....	.....	300	971	1	1	40,000
5	1 50	4,122	6	1	12	10	48.7	.....	M.	125	130	.....	.....	5,525
6	1 25	5,807	4	1	1	6	40.7	.....	S-M.	210	222	.....	.....	6,000
7	1 25	2,544	33	.....	1	4	50	.....	W.	150	150	.....	.....	5,000
8	1 50	1,427	12	1	1	5	50	.....	.....	75	100	.....	.....	1,000
9	1 12	1,068	12	1	1	4	50	.....	.....	125	80	.....	.....	5,000
10	85	42,870	60	12	7	79	40.7	.....	S-M.	170	2,275	.....	.....	75,000
.....	.....	\$219,135	310	102	56	468	.....	.....	.....	.....	10,917	2	5	647,525
.....	\$0 95.8	.....	.....	.....	.....	.....	\$0 41.5	\$0 24	.....	165	.....	.....	.....	.....

Tazewell County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.				WAGES.			Days of active operation.	Kegs of powder used.	ACCI- DEN'S		Capacity of mine— tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employes un- der ground.	All employes above ground.	Total employes.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly					
							For hand- mining.	For machine- mining.						
1	\$0 95	\$14,627	27	1	3	31	\$0 47	.....	S-M.	200	714	.....	.....	35,000
2	1 00	7,500	15	2	3	20	50	.....	.....	200	300	.....	.....	37,500
3	1 00	16,029	30	4	4	38	45	.....	.....	174	1,000	.....	.....	65,000
4	1 10	6,638	8	1	1	10	72.5	.....	.....	225	350	.....	.....	15,000
5	1 12.5	1,620	4	.....	1	5	72.5	.....	.....	130	80	.....	.....	3,000
6	1 00	529	3	.....	1	4	72	.....	W.	200	46	.....	.....	1,500
7	1 00	1,735	9	1	1	11	67.5	.....	S-M.	120	104	.....	.....	4,000
8	1 00	2,806	8	1	1	10	68	.....	W.	110	135	.....	.....	6,000
9	1 00	1,620	14	4	3	21	45	.....	.....	75	90	1	.....	10,000
10	1 00	2,500	5	1	1	7	50	.....	.....	120	100	.....	.....	5,000
11	1 00	21,500	12	3	2	17	42	.....	.....	200	860	.....	.....	40,000
12	1 00	1,950	4	.....	1	5	50	.....	.....	150	100	.....	.....	.....
.....	.....	\$79,054	139	18	22	179	.....	.....	.....	.....	3,879	..	1	222,000
.....	\$1 00	.....	.....	.....	.....	.....	\$0 45.4	.....	.....	159	.....	.....	.....	.....

† Forked coal.

* Average price paid for 71,500 gross tons.

Vermilion County—Fourth District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.							OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades.	
1	Economy C. & M. Co.	Danville	85	5.6	7	Sh.	S.	B.	61,398	†64,398		
2	Catlin Coal Co.	Catlin	168	6	6	..	..	..	98,157	67,860	19,297
3	Kellyville C. Co. No. 2	Westville	200	8	6	..	..	Bo.	248,872	248,872	
4	Pawnee Coal Co.	..	90	7.6	6	..	..	..	173,540	128,140	45,400
5	Himrod Coal Co.	Danville	170	8	6	..	..	M.	68,091	56,169	11,922
6	Westville Coal Co.	Westville	212	8	6	..	..	..	165,899	165,899	
7	Consolidated Coal Co.	Fairmount	208	5	..	..	..	B.	41,464	30,885	10,579
8	Consolidated Coal Co.	Tilton	70	6	..	..	..	..	24,024	17,719	6,308
9	Butler B. Co. (lessee)	Oakwood	* 70	6	..	..	..	..	110,320	100,465	9,855
10	Muncie Coal Co.	Muncie	200	5	..	..	..	B.	27,700	25,600	2,100
11	J. W. Ellsworth & Co.	Glenburn	170	5.6	7	Sh.	S.	Bo.	41,727	41,727		
12	Jonah James	Grape Creek	40	6	6	D.	Ho.	B.	1,000	700	300	
13	John Sheppard	Vandercook	60	6	6	Sh.	..	..	800	600	200
14	Warren Neil	..	50	6	6	Sl.	..	..	150	120	30
15	J. W. Boyd	Danville	90	6	6	7	Sh.	..	1,200	1,000	200	
16	Bert Hodge	..	40	6	6	7	Sh.	..	1,400	1,100	300	
17	Wm. Jones	Catlin	30	5.6	6	7	Sh.	..	1,000	750	250	
18	H. Blakeny	Grape Creek	100	7	6	Sl.	..	..	1,200	900	300
19	John Woodard	Oakwood	60	5.6	6	7	Sh.	..	400	350	50	
20	Spangler & Miller	Danville	100	6	6	7	Sh.	..	1,800	1,000	300	
21	L. E. Baker	Oakwood	80	6	6	7	..	..	2,500	2,000	500
22	B. Beddow	Danville	60	6	6	7	Sl.	M.	850	750	100	
23	Geo. Haskin	Grape Creek	85	6.6	6	7	..	B.	1,000	750	250	
24	Thos. Jones	Catlin	40	6	6	7	Sh.	..	1,200	900	300	
25	A. L. Woodard	..	60	6	6	7	..	..	2,000	1,500	500
26	Thos. Evans	Grape Creek	45	6.6	6	D.	Hd.	..	75	60	15	
27	Mauck Bros.	Danville	40	5.6	6	7	..	Ho.	4,500	3,600	900	
28	Evan Jones	Catlin	59	6	6	7	Sh.	..	400	350	50	
29	Vespasian Palmer	Grape Creek	89	6.6	6	D.	..	..	400	300	100
30	A. Jones & Sons	Catlin	51	5.6	6	7	Sh.	..	2,825	2,825		
31	Lous Pishon	Danville	100	5.6	6	7	..	..	900	700	200
32	Marriage & Son	Grape Creek	70	6.6	6	D.	..	..	1,000	800	200
33	Thomas Graham	Georgetown	10	4.6	6	7	Sh.	Hd. St.	400	400		
34	Danville B. & T. Co.	Danville	12	5.6	7	St.	..	..	8,000	8,000	
35	J. W. Horning	Georgetown	10	4.6	7	..	..	..	350	350	
36	J. A. Allison	Danville	70	5	7	D.	Ho.	B.	900	800	100	
37	Otto Leveridge	..	60	5	7	..	..	..	800	800	
38	William Ray	..	50	5.6	7	..	..	..	700	600	100
39	Stansbury & Watkins	..	50	5.6	7	..	..	..	1,500	1,000	500
40	A. H. Bonnett	Snyder	100	5.6	7	Sh.	..	..	6,000	5,500	500
41	John Swanson	Danville	80	5.6	7	Sl.	..	..	1,800	1,300	500
42	John R. Colburn	Vandercook	60	5.6	7	D.	..	..	1,000	800	200
43	E. S. Gray	Danville	55	5.6	7	Sh.	..	..	4,000	3,500	500
44	Elisha Lloyd	..	60	6	7	..	..	..	5,100	3,350	1,750
45	Brkside C. M. Co. (les)	Grape Creek	45	7	6	..	S.	..	49,420	49,420		
46	Brkside C. M. Co. No. 2	..	100	7	6	Sl.	..	..	12,212	11,233	979
47	Brkside C. M. Co. No. 4	..	90	6.6	6	..	..	..	9,870	6,870	3,000
48	Kellyville C. Co. No. 3	Westville	212	7.6	6	Sh.	..	Bo.	235,220	235,220		
49	Kellyville C. Co. No. 1	..	90	7.6	6	..	..	B.	49,950	49,950	
50	D. A. Jenkins	Danville	100	6	7	Sl.	Ho.	..	5,100	4,050	1,050	
51	M. C. Wilkinson	..	45	6	7	D.	..	..	1,200	900	300
52	Bunting Bros.	Grape Creek	110	7	6	..	..	..	5,422	4,000	1,422
53	Frances Bros.	Catlin	52	5	7	Sh.	..	..	5,200	5,200	

* Stripping.

† Mine-run.

Vermilion County, 1898—Continued.

Number.	VALUES.		EMPLOYES.				WAGES.		Paid monthly, semi-monthly or weekly.	Days of active operation.	Kegs of powder used.		ACCI-DEN'S		Capacity of mine—tons.
	Av. value of lump per ton at the mine.	Aggregate value of total product.	No. of miners employed.	Other employes under ground.	All employes above ground.	Total employes.	Price paid per gross ton.				Fatal.	Non-fatal.			
1	\$0 90	857,958	100	15	9	124	\$0 40	.....	S-M.	230	1,600	12	3	120,000
2	90	63,818	90	15	9	114	36	.....	.....	218	2,629	12	12	180,000
3	80	199,097	220	90	16	326	40	\$0 30	.....	159	6,220	1	8	500,000
4	70	112,398	250	50	15	315	40	30	.....	150	3,015	1	15	400,000
5	70	45,281	50	15	12	77	.....	30	.....	186	1,415	1	8	200,000
6	63	104,516	185	85	15	285	40	28	.....	177	1,908	4	9	400,000
7	95	32,514	60	15	7	82	40	.....	.....	182	2,046	1	4	400,000
8	1 05	20,495	40	7	6	53	37	.....	.....	160	580	.....	.....	25,000
9	90	93,375	.....	.....	95	95	*	.....	.....	.....	.....	.....	.....	100,000
10	1 25	33,470	35	6	4	45	40	.....	.....	230	780	.....	2	25,700
11	70	29,209	140	70	20	230	40	.....	.....	187	1,426	1	.....	240,000
12	1 00	805	2	1	1	4	40	.....	.....	150	26	.....	.....	2,500
13	1 00	720	2	.....	1	3	40	.....	W.	200	15	.....	.....	2,400
14	1 00	138	1	.....	1	2	40	.....	.....	50	5	.....	.....	1,000
15	1 00	1,080	2	.....	1	3	40	.....	.....	150	25	.....	.....	3,000
16	1 00	1,220	3	1	1	5	40	.....	.....	140	27	.....	.....	5,000
17	1 00	875	2	.....	1	3	40	.....	.....	150	22	.....	.....	3,500
18	1 00	1,020	2	.....	1	3	40	.....	.....	150	25	.....	.....	3,600
19	1 00	380	2	.....	1	3	40	.....	.....	80	10	.....	.....	2,000
20	1 00	1,150	6	1	.....	7	40	.....	.....	125	30	.....	.....	4,000
21	1 00	2,250	4	.....	1	5	50	.....	.....	200	60	.....	.....	5,000
22	1 00	800	2	.....	.....	2	40	.....	S-M.	150	10	.....	.....	2,000
23	1 00	837	2	.....	1	3	40	.....	.....	125	26	.....	.....	3,000
24	1 00	1,050	2	.....	1	3	40	.....	W.	200	50	.....	.....	3,500
25	1 00	1,750	4	1	1	6	40	.....	M.	165	100	.....	.....	4,000
26	1 00	65	1	.....	1	2	40	.....	W.	25	2	.....	.....	800
27	0 95	3,870	4	1	1	6	40	.....	.....	250	180	.....	.....	9,000
28	1 00	375	2	.....	1	3	40	.....	.....	50	8	.....	.....	2,400
29	90	320	2	.....	1	3	40	.....	.....	50	9	.....	.....	4,000
30	1 00	2,825	23	.....	1	4	50	.....	.....	250	100	.....	.....	4,000
31	1 00	800	2	1	1	4	40	.....	S-M.	150	14	.....	.....	3,000
32	90	800	2	.....	1	3	40	.....	.....	100	26	.....	.....	3,500
33	1 00	400	.....	.....	3	3	.....	.....	W.	75	.....	.....	.....	1,600
34	1 00	8,900	5	1	1	7	40	.....	S-M.	150	.....	.....	.....	16,000
35	1 00	350	.....	.....	3	3	.....	.....	W.	75	.....	.....	.....	1,000
36	1 00	850	2	.....	.....	2	40	.....	.....	100	12	.....	.....	2,500
37	1 00	800	2	.....	1	3	40	.....	.....	100	16	.....	.....	2,000
38	1 00	650	2	.....	1	3	40	.....	.....	80	15	.....	.....	2,100
39	1 12.5	1,375	4	.....	1	5	40	.....	.....	285	50	.....	.....	2,000
40	1 25	7,125	10	2	3	15	60	.....	.....	150	100	.....	.....	12,000
41	1 25	1,725	3	1	1	5	40	.....	.....	180	40	.....	.....	2,500
42	1 00	900	2	.....	.....	2	60	.....	.....	200	38	.....	.....	2,000
43	1 25	4,625	5	1	2	8	40	.....	.....	150	108	.....	.....	8,000
44	1 12.5	4,731	6	1	1	8	40	.....	S-M.	200	105	.....	.....	15,000
45	85	42,007	45	10	6	61	38	.....	.....	220	1,000	.....	.....	210,000
46	85	9,992	16	6	6	28	38	.....	.....	160	400	.....	.....	300,000
47	85	7,939	15	5	4	24	33	.....	.....	140	250	.....	.....	.....
48	85	199,937	200	76	12	288	40	23	.....	170	5,880	1	8	400,000
49	85	42,458	45	7	4	56	38	.....	.....	170	1,248	.....	.....	.....
50	1 10	5,205	9	1	2	12	40	.....	W.	300	200	.....	.....	7,000
51	1 00	1,050	2	.....	3	5	40	.....	.....	200	25	.....	.....	3,000
52	1 00	5,137	9	2	2	13	40	.....	S-M.	208	180	.....	.....	15,000
53	1 00	5,200	10	1	1	12	60	.....	M.	230	105	.....	.....	15,000

* Laborers paid \$1.50 per day.

† 35 cents, 50 cents and 55 cents.

‡ Leased February 21, 1898.

§ Wages paid to laborers, \$1.25 per day.

Vermilion County—Fourth District—1898—Concluded.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades
54	C. H. Dobbins.....	Danville.....	....	5 5	7	St.	St.		3,000	3,000	.....
55	William Shaffer.....	".....	....	6	7	St.	St.		600	600	.....
56	S. Parle.....	".....	110	6	7	Sl. Hd. B.			23,460	22,960	500
57	E. Earle.....	".....	40	6	6	D.			4,000	4,000	.....
58	A. Humes.....	".....	45	6	6	"			1,000	1,000	.....
59	Bushong Bros.....	".....	48	6	6	"			6,200	6,200	.....
60	Joseph Kelly.....	".....	90	6	7	Sl.			200	200	.....
Totals .....			.....	.....	.....	.....	.....	.....	1,520,699	1,399,791	120,908
Averages.....			.....	.....	.....	.....	.....	.....	.....	.....	.....

Whole number of openings reported in 1897, 59.

Number of new mines or places opened during the year, 1.

Whole number of openings reported for 1898, 60.

Vermilion County, 1898—Concluded.

Number.	VALUES.		EMPLOYEES.				WAGES.			Days of active operation.	Kegs of powder used.	ACCI- DEN'S		Capac- ity of mine— tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly					
							For hand- mining.	For machine. mining.						
54	\$1 00	\$3,000	5	.....	.....	5	.....	.....	W.	75	.....	.....	.....	12,000
55	1 00	600	3	.....	.....	3	.....	.....	.....	60	.....	.....	.....	1,800
56	1 00	23,210	5	1	1	7	\$0 40	.....	.....	175	782	.....	.....	30,000
57	90	3,600	10	1	1	12	40	.....	S-M.	150	100	.....	.....	8,000
58	90	900	4	1	1	6	40	.....	.....	75	25	.....	.....	10,000
59	90	5,400	5	1	1	7	40	.....	.....	150	150	.....	.....	12,000
60	1 00	200	2	.....	1	3	40	.....	W.	75	5	.....	.....	2,500
.....	.....	\$1,202,627	1,743	492	194	2,429	.....	.....	.....	.....	33,223	12	59	3,754,900
.....	\$0 82.34	.....	.....	.....	.....	.....	\$0 40.52	\$0 28.25	.....	150.4	.....	.....	.....	.....

Recapitulation by Counties—

COUNTY.	MINES.				PRODUCTS.				VALUES.			
	Number of mines.	Shipping mines.	Mines in local trade.	New mines.	Abandoned mines.	Total tons produced.	Tons of lump coal.	Tons of other grades.	Tons shipped.	Estimated capacity (in tons) of existing mines.	Average value per ton of lump at the mine.	Aggregate value of total product.
Cass.....	3	..	3	..	1	2,900	2,450	450	.....	24,000	\$1.615	\$4,182
Logan.....	3	3	..	..	..	177,935	118,042	59,893	128,666	290,000	0.995	154,056
Macon	3	3	..	..	..	300,264	230,887	69,377	204,375	420,000	1.06	289,761
McLean.....	3	3	..	..	..	171,594	138,577	33,017	33,650	275,000	1.182	187,814
Menard.....	10	5	5	..	1	314,160	212,634	101,526	266,336	647,525	0.958	219,135
Tazewell.....	12	3	9	1	1	84,507	75,751	8,756	16,725	222,000	1.00	79,054
Vermilion.....	60	22	38	1	..	1,520,699	1,399,791	120,908	1,340,144	3,754,900	0.823	1,202,627
Totals.....	94	39	55	2	3	2,572,059	2,178,132	393,927	1,989,896	5,633,425	.....	\$2,136,629
Averages .....	..	..	..	..	..	.....	.....	.....	.....	.....	\$0.9005	.....

Whole number of openings reported in 1897, 95.

Number of new mines or places opened during the year, 2.

Number of mines exhausted or abandoned during the year, 3.

Whole number of openings reported for 1898, 94.

Fourth District—1898.

EMPLOYEES.			Average number of days of active operation.	Number of kegs of powder used.	CASUALTIES.				WAGES.		MACHINES.		
Number of miners.	Number of other employees.	Total employees.			Killed.	Injured.	Widows.	Children.	Average price paid per gross ton.		Number of mines using machines.	Number of machines in use.	Total tons cut by machines.
									For hand mining.	For machine mining.			
22	9	31	123	50	2	....	1	6	\$0.825	.....	.....	.....	.....
185	73	258	238	6,180	1	6	1	1	.434	.....	.....	.....	.....
282	62	344	280	3,596	....	11	....	....	.466	.....	.....	.....	.....
240	81	321	267	1,820	2	10	1	4	.583	.....	.....	.....	.....
310	158	468	165	10,917	2	5	2	5	.415	\$0.24	1	7	53,263
130	40	179	159	3,879	....	1	....	....	.454	.....	.....	.....	.....
1,743	686	2,429	150	33,223	12	59	6	6	.405	0.283	6	49	502,339
2,921	1,109	4,030	.....	59,665	19	92	11	22	.....	.....	7	56	555,602
.....	.....	.....	162.3	.....	.....	.....	.....	.....	\$0.4367	\$0.2722	.....	.....	.....

1. The first part of the document is a list of names and addresses of the members of the committee.

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FIFTH INSPECTION DISTRICT—1898.

Counties: Calhoun, Christian, Greene, Macoupin, Montgomery, Sangamon, Shelby, Scott, Jersey, Morgan.

WALTON RUTLEDGE, *Inspector*, Alton.

HON. DAVID ROSS, *Secretary*,

State Bureau of Labor Statistics, Springfield, Illinois:

SIR:—In accordance with section 12 of an act of the General Assembly defining the duties of State Inspectors of coal mines of Illinois, I herewith submit the annual report for the Fifth Inspection District for the year ending July 1, 1898, which is the fifteenth annual contribution to the coal statistics of the State. In the Fifth District coal mines are operated in the counties of Calhoun, Christian, Greene, Jersey, Morgan, Macoupin, Montgomery, Sangamon, Shelby and Scott. A tabular statement is herewith given of the statistics of each county, showing the number of mines operated during the year, both shipping and local mines, and new and abandoned mines; the depth of coal below the surface, with the geological number and thickness of the various coal seams; the number of miners and other employes working in the mines and on the surface; the total tonnage of all grades of coal; the average value of coal for the whole district, with the value per ton at each mine; the value of the product at the mine, and the aggregate value of the total product, and the casualties in and around the mines, both fatal and non-fatal.

The following summary is given as a recapitulation of the principal facts found in the schedules of the various counties:

Number of mines.....	81
Shipping mines.....	53
Local mines.....	28
New mines.....	8
Abandoned mines.....	6
Total output in tons of 2,000 pounds.....	3,925,690
Tons of lump coal.....	2,718,175
Tons of other grades.....	1,207,515
Tons shipped by railroads.....	3,335,071
Average value per ton of lump coal at the mine.....	\$0 80
Aggregate value of total product.....	\$2,576,994 00
Number of miners.....	4,424
Number of other employes.....	1,668
Total number of employes.....	6,092
Average number of days worked during the year.....	191 6
Number of kegs of powder used.....	86,244
Fatal accidents.....	43
Non-fatal accidents.....	123
Number of coal-cutting machines used.....	

Tons of coal cut by machines.....	1,054,42
Number of tons of coal produced to each fatal accident.....	765,10
Number of tons of coal produced to each non-fatal accident.....	81,75
Number of persons employed to each fatal accident.....	1,20
Number of persons employed to each non-fatal accident.....	16
Estimated annual capacity, in tons, of existing mines as now equipped.....	9,537,50

Coal production by counties in the Fifth District, with increase or decrease in each, for the years ending July 1, 1897, and July 1, 1898.

COUNTIES.	TOTAL OUTPUT IN TONS.		Increase.	Decrease.
	1897.	1898.		
Calhoun.....	3,868	4,893	1,025	
Christian.....	837,897	495,616		342,281
Greene.....	7,200	8,520	1,320	
Jersey.....		1,680	1,680	
Morgan.....		1,800	1,800	
Macoupin.....	1,975,961	1,264,926		711,035
Montgomery.....	251,249	294,667	43,418	
Sangamon.....	1,838,453	1,763,863		74,590
Scott.....	25,125	21,337		3,788
Shelby.....	69,329	68,388		941
Total.....	5,009,102	3,925,690	49,243	1,123,655
Decrease.....				1,123,655
Increase.....				49,243
Net decrease.....				1,083,412

The district shows a decrease in output of 1,083,412 tons. This is owing to the general strike of 1897, and the lockout since April 1, 1898, of the mines on the Chicago & Alton railroad south of Springfield, and the mines in the Pana coal field. The mines of the Consolidated Coal Co., which embrace six of the largest mines in the district, worked about seven months in the year. The mines at Pana, Taylorville and Assumption, which are all large mines, worked about six months in the year. The Madison Coal Company's mine at Mt. Olive, which is also one of the largest mines, worked about six months. The mines in Sangamon county worked about nine months. Montgomery county shows an increase in output of 43,418 tons. This is owing to the fact that the Coffeen Coal Mining & Coke Co.'s mine was operated continuously with a large force of men during the three months' strike in 1897, and to the opening out of the Montgomery Coal Co.'s shaft at Paisley, and the new shaft at Raymond. Owing to the strike of 1897, and the various suspensions on April 1, 1898, the output of the district is 1,500,000 tons less than it would have been had the mines been worked the same number of days that they were in 1897. The following mines have not been worked since April 1, 1898: Those of the Pana Coal Co., the Penwell Coal & Mining Co., the Springside Coal & Mining Co., the Nilwood Carbon Coal Co., the O'Gara & King Coal Co., the Virden Coal Co. and the Chicago-Virden Coal Co.'s Nos. 1 and 2. These various coal companies claim they can not pay the scale price fixed at Springfield last spring and run their mines at a profit. The Carville Coal Co., the Girard Coal Co. and the Auburn Coal Co. are paying

the scale price and operating their mines. They are in the same coal field with the companies refusing to pay the scale.

Mine Fire.—At the Girard Coal Co.'s mine, at Girard, a fire broke out on the night of April 2, 1898, which destroyed the fan-house, fan, engine, rope and cage in the escapement shaft, burning the curbing partly at the top of the shaft. A new fan-house, fan, ropes and cage have been put in during the year and the shaft at the surface has been retimbered.

Improvements.—For a more effective ventilation at the mines new fans twenty feet in diameter have been erected at the mines of the Madison Coal Co. at Mount Olive, of the Springside Coal Mining Co. at Pana, of the Moweaqua Coal Mining & Manufacturing Co. at Moweaqua, of the Carlinville Coal Co. at Carlinville, and of the Chicago-Virden Coal Co.'s No. 1 mine at Virden. A new fan sixteen feet in diameter is erected at the mine of the Springfield Coal Mining & Tile Co., Springfield, and also at the mine of the Cantrall Coöperative Coal Co. at Cantrall. A new boiler has been put in by the Carlinville Coal Co. with a steam pipe line from the main shaft to the fan and hoisting engine at the escapement shaft. The endless-rope cable has been extended for a distance of one half mile in the Springside Coal Mining Co.'s shaft at Pana.

Shaking screens for the more effective cleaning of the coal have been put in at the mines of the Junction Mining Co., the Black Diamond Coal Mining & Tile Co. and the Woodside Coal Co. at Springfield, also at the mines of the Wabash Coal Co. at Dawson, and of the Spaulding Coal Co. at Spaulding.

Coal-cutting machinery has been put in at the mines of the Thomas Pressed Brick Company, at Golden Eagle, the Raymond Coal Company, at Raymond, the Hillsboro Coal Company, at Hillsboro, and the Chicago-Virden Coal Company, at Virden. An Ingersoll air compressor and an Ingersoll-Sergeant pick machine is used at Golden Eagle. A Norwalk air compressor and one Ingersoll and one Sullivan pick machine is used at Raymond.

At the Hillsboro mine a very effective engine and dynamo plant is put in. The company is running four Morgan-Gardner chain-breast machines. Around the shaft bottom and at all main doors in the workings electric lights are erected.

At Virden, at the mine of the Chicago-Virden Coal Company, the dynamo and engine are about the same as at Hillsboro. The company is using eight Link-belt chain-breast coal-cutting machines, and electric lights are used around the bottom of the shaft.

The Consolidated Coal Company has extended the cable haulage for a distance of 1,200 feet in their No. 6 mine at Staunton.

The Madison Coal Company has dug a large storage reservoir, affording an ample supply of water for the mine, and has also put in improved coal conveyors at their No. 5 mine at Mount Olive.

New Mines.—The Raymond Coal Company has opened a mine during the the year; the shaft is 434 feet deep and the coal seam is 3 feet 3 inches in thickness. The coal is mined by coal-cutting machines. The hoisting engine is second motion, with suitable steam power.

The Citizens' Coal Mining Company, of Springfield, has opened what is called their "B" shaft. This shaft is 205 feet deep to coal seam No. 5, which is 5 feet 6 inches thick. The engine and boiler house is built of brick, with suitable engine and steam power; a fan 10 feet in diameter is put in for ventilation; the fan house is so built that a larger fan can be put in at any time. For cleaning the coal a shaking screen 60 feet long is erected. Coal, as it passes through the various meshes of the screen, falls direct into the railroad cars, dispensing with elevators and storage bins. The shaft is located three miles west of Springfield on the St. Louis, Chicago & St. Paul Railroad.

The Montgomery Coal Company has opened a new mine for business during the year at Paisley. A tower and out buildings have been put up, with suitable side tracks, and a new 12-foot fan put in. This mine is located one mile west of the village of Witt, in Montgomery county; a new town site is laid out and a number of houses have been built. The name of the new town is Paisley. The coal seam of the mine is No. 5, and it is about 8 feet thick; the shaft is 534 feet deep; the roof above the coal is very good and the coal will be easily mined.

Three small coal drifts have been opened near Chesterfield, in Macoupin county; one small shaft 3 miles south of Murrayville, in Morgan county; one small drift one mile west of Delphi, in Jersey county, and a new shaft near Roodhouse, in Greene county.

Abandoned Mines.—Two small drifts have been abandoned—one at Exeter and one near Winchester, in Scott county, and four small drifts are abandoned in Shelby county.

Escapement Shafts—The Litchfield Mining and Power Company is sinking an escape shaft. The Edinburg Coal Company is sinking a new escapement shaft in place of the one that caved in some two years ago. The Montgomery Coal Company, of Paisley, is sinking an escapement shaft. The Junction Mining Company and the Black Diamond Coal Mining and Tile Company, both of Springfield, are driving entries from each side with a view to making underground connection between the two mines for additional escape ways.

Fatal Accidents.—John French, a machine helper, aged 31 years, was killed July 9, 1897, in the Hornsby mine. The machine runner was cutting in the corner of a room; a piece of coal had been left up from the last shot; the coal fell. French, it appears, had a pick in his hand; he had jumped back when the coal fell, but falling beneath it, the pick stuck in his forehead and killed him.

William Schulze, a driver, aged 20 years, was killed October 22, 1897, in the Sangamon Coal Co.'s mine. He was going in with an empty trip; there were some iron rails on top of the cars. It appears that the front ends of the rails had projected beyond the side of the front car, the one he was riding on. The ends of the rails caught some props on the side of the entry and knocked them out. Slate fell and caught him.

Geo. Moore, a miner, aged 20 years, was killed January 6, 1898, in the Carlinville Coal Co.'s mine. He was working at the face of a room. The roof of the room being of a treacherous nature, soft and full of slips, a piece of it fell and caught him.

Charles Hyatt, a laborer, aged 17 years, was injured January 20, 1898, by a premature blast, from which he died February 3, 1898. Hyatt was working with Peter Brown, a practical miner in the Chicago-Virden Coal Co.'s mine at Auburn. It appears Brown had allowed the boy, Hyatt, to charge a hole; the boy had got a certain quantity of powder in the hole, which, from some cause, exploded, burning Hyatt, also Peter Brown and his two sons, John and James.

Paul Gloekner, a laborer, aged 20 years, was killed May 5, 1898, at the Consolidated Coal Co.'s mine No. 8, at Mount Olive, by a passenger train on the Wabash railroad. He was employed with a team to pull out a wire rope to attach to the empty cars in order to pull them to the screens. It appears he had pulled the rope out to the empty cars and had unhitched his team from the rope, when, in turning his team, the horses got on the main track of the Wabash railroad. A train running east struck the horses, throwing them upon the driver, who was instantly killed.

Respectfully submitted,

WALTON RUTLEDGE,

State Inspector of Mines, Fifth District.

ALTON, ILL.

Fatal Casualties—Fifth District—1898.

Date.	Name.	Age.	Occupation.	Residence.	Married.	Widow.	Children.	Single.	Depend'nts	Cause of Accident.
1897.										
July 9	John French.....	31	Mach. help'r	Hornsby				1		Pick striking head...
Oct. 22	Wm. Schultze.....	20	Driver.....	Springfield..				1		Falling slate.....
1898.										
Jan. 6	Geo. Moore	20	Miner.....	Carlinville..				1		Falling clod.....
Feb. 3	Chas. Hyatt.....	17	Laborer.....	Auburn.....				1		Premature blast....
May 5	Paul Gloekner.....	20	.....	Mt. Olive....				1		Passenger train, Wabash R. R.....
	Totals.....							5		

Total fatal casualties—5.

Recapitulation of Fatal Casualties—Fifth District—1898.

Residence.	No.	Occupation.	No.	Nature of Casualty	No.	Colliery.	No.
Auburn.....	1	Driver	1	Falling clod.....	1	Carlinville Coal Co..	1
Carlinville....	1	Laborers.....	2	Falling slate.....	1	Chicago-Virden C. Co.	1
Hornsby.....	1	Mach. helper..	1	Passenger train,		Consolidated Coal Co	2
Mt. Olive.....	1	Miner.....	1	Wabash R. R.....	1	Sangamon Coal Co....	1
Springfield...				Pick striking head	1		
				Premature blast...	1		
Totals.....	5				5		5

Non-Fatal Casualties—Fifth District—1898.

Date.	Name.	Age.	Residence.	Married.	Sin le.	Children.	Dependents.	Character of Injury.	Time lost— days.
1897.									
July 12	Matt Redish.....	29	Greenridge.	1	1			Leg broken.....	30
Sept. 23	George Golden.....	40	Springfield.	1		4	5	Body injured.....	13
Oct. 13	Angelo Fermenti.....	38	Auburn.....	1		2	3	Body injured.....	23
" 21	Leonard Early.....	40	Springfield.	1		5	6	Body injured.....	4
" 21	Wm. Simpson.....	60	Pana.....	1		2	3	Leg broken.....	30
" 30	M. J. Gaffigan.....	28	Springfield.	1		1		Leg injured.....	11
Nov. 8	Andrew O'Brien.....	44	"	1		6	7	Knee crushed.....	2
" 12	C. Latchinson.....	33	Auburn.....	1		1		Body injured.....	20
" 15	T. Featherstone.....	25	Assumption	1		1		Arms burned.....	16
" 15	Henry Lefevre.....	40	"	1		1		Arms burned.....	20
Dec. 4	Jos. Zephardt.....	38	Greenridge.	1		2	3	Body injured.....	10
" 8	Peter Anderson.....	44	Springfield.	1		5	6	Body injured.....	15
" 28	Ed. Melchard.....	22	Auburn.....	1		1		Body crushed.....	14
1898.									
Jan. 3	Chas. Bone.....	26	Moweagua..	1				Foot bruised.....	20
" 3	John Weigand.....	32	Greenridge.	1		5	6	Arm injured.....	23
" 6	Fred Hebenstreit.....	32	Staunton.....	1		1		Body injured.....	30
" 6	Elmer Morris.....	22	Auburn.....	1		1		Body injured.....	20
" 19	George Duncan.....	18	Mt. Olive.....	1		1		Body injured.....	25
" 19	Peter Brown.....	47	Auburn.....	1		3	4	Body burned.....	20
" 19	James Brown.....	17	"	1		1		Body burned.....	22
" 19	John Brown.....	16	"	1		1		Body burned.....	16
" 29	Felix Gregatis.....	24	Assumption	1		1		Arm broken.....	90
" 29	Mike Druve.....	32	Greenridge.	1		1		Body injured.....	8
Feb. 3	John Bluen.....	30	"	1		1		Body injured.....	7
" 9	John Berriman.....	20	Viriden.....	1		1		Leg broken.....	110
" 11	C. M. Tracy.....	33	Greenridge.	1		1		Body injured.....	10
" 19	John Nilan.....	35	Staunton.....	1		1		Body injured.....	24
" 24	Fred Mitchell.....	31	"	1		1		Hand crushed.....	21
" 25	J. T. Kelly.....	40	Gillespie.....	1		1		Foot bruised.....	10
" 28	Henry Buefeher.....	38	Staunton.....	1		1		Body injured.....	40
" 28	F. Hasse.....	34	"	1		1	2	Body injured.....	25
Mar. 2	Anton Snyder.....	45	Assumption	1		1		Body injured.....	35
" 7	Alvin Grooner.....	19	Staunton.....	1		1		Body injured.....	30
" 18	Henry Payne.....	26	Litchfield.....	1		1		Body injured.....	30
" 18	Wm. Calley.....	34	Mt. Olive.....	1		1	2	Body injured.....	20
" 23	Frank Paubel.....	47	Springfield.	1		1	1	Body injured.....	10
" 31	John Cummings.....	28	Viriden.....	1		1		Body injured.....	15
" 31	Julius Berroger.....	32	Pana.....	1		4	5	Body burned.....	*
" 31	Wm. Shaub.....	25	Gillespie.....	1		1		Body seriously injured.....	*
April 15	Henry Hoemuth.....	19	Staunton.....	1		1		Foot injured.....	21
" 19	John Mahon.....	16	Springfield.	1		1		Legs broken and hips injured.....	*
" 19	John Weeks.....	16	Staunton.....	1		1		Body injured.....	14
" 26	Robert Murrell.....	32	Hillsboro.....	1		2	3	Body injured.....	*
May 2	Wm. Berry.....	19	Springfield.	1		1		Hip dislocated, hand bruised.....	*
" 22	Wm. Monday.....	20	Pana.....	1		1		Leg broken.....	*
June 3	M. Turner.....	27	Viriden.....	1		1		Body injured.....	20
" 4	John Coole.....	36	Mt. Olive.....	1		2	3	Finger taken off.....	*
" 9	Andy Kochek.....	27	Viriden.....	1		1		Leg broken.....	*
	Totals.....			17	31	44	59		

* Not recovered July 1, 1898.

† Amputated.

‡ Both legs broken.

Total men injured.....	48
Not recovered July 1, 1898.....	9
Number recovered.....	39
Total time lost by men recovered.....	1,351 days
Average time lost per man recovered.....	34.6

Recapitulation of Non-Fatal Casualties—Fifth District—1898.

Residence.	No.	Occupation.	No.	Cause of Accident.	No.	Colliery.	No.
Assumption..	4	Cager.....	1	Cage	2	Assumption Coal Co.	4
Auburn.....	7	Drivers.....	8	Engine.....	1	Capitol Coal Co.....	2
Gillespie.....	2	Engineer.....	1	Explos'n of powd'r	4	Chicago-Virden C. Co.	10
Greenridge....	6	Gripper.....	1	Falling coal.....	7	Citizens' Coal Co.....	2
Hillsboro.....	1	Laborers.....	3	Falling from cage.	1	Consolidated C. Co....	13
Litchfield.....	1	Loaders.....	3	Falling rock.....	15	Hillsboro Coal Co.....	1
Mt. Olive.....	3	Mach. helper.	1	Fire-damp.....	2	Litchfield Coal Co....	1
Moweaqua.....	1	Mach. runner.	1	Flying coal.....	1	Moweaqua Coal Co.....	1
Pana.....	3	Miners.....	22	Pit-cars.....	9	O'Gara-King C. Co....	6
Springfield....	8	Mine manag'r	1	Premature blast...	3	Pana Coal Co.....	1
Staunton.....	8	Picker.....	1	Screen.....	1	Penwell Coal Co.....	1
Virden.....	4	Timbermen...	4	Not stated.....	2	Springfi'd Coop. C. Co	1
		Topman.....	1			Springfield M. & T. Co	1
						Springside Coal Co....	1
						Starne's Coal Co.....	1
						Virden Coal Co.....	1
						Woodside Coal Co....	1
Totals.....	48		48		48		48

Table showing the Nature of Injuries, Number of Persons Injured, Dependents, Time Lost, with Averages and Percentages, Fifth District.

NATURE OF INJURY.	Number.	Married.	Single.	Dependents.	TIME LOST.		Per cent of injuries.
					Total days.	Average days.	
Arm broken.....	1		1		90	90	2.09
Arms injured.....	3	1	2	6	59	19.7	6.25
Bodies injured.....	30	12	18	40	720	24	62.5
Feet injured.....	3		3		51	17	6.25
Finger cut off.....	1	1		3			2.08
Hand injured.....	1	1			21	21	2.08
Hip injured.....	1		1				2.08
Knee injured.....	1	1		7			2.08
Legs broken.....	6	1	5	3	290	48.3	12.5
Leg injured.....	1		1		120	120	2.09
Totals, averages and percentages ...	48	17	31	59	1,351	34.6	100.00

Calhoun County—Fifth District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades
1	Thomas P. Brick Co..	Golden Eagle.	2.4	1	D. Ho. M.				4,893	4,893	.....
	Totals								4,893	4,893	.....
	Averages .....										.....

Whole number of openings reported in 1897, 1.

Whole number of openings reported for 1898, 1.

Christian County—Fifth District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades
1	Assumption C. & M. Co.	Assumption...	1003	3.6	...	Sh. S. M.			50,000	24,600	15,400
2	Edinburg C. C. Co.	Edinburg	365	1.0	5	B.			10,500	7,875	2,625
3	Pana C. C. Nos. 1 & 2.	Pana	720	1.6	5	..			101,738	59,860	50,878
4	Penwell C. M. Co.	"	223	1.6	5	..			84,026	52,995	31,031
5	Springside C. M. Co.	"	223	1.6	5	..			69,332	43,548	25,784
6	Taylorville Coal Co.	Taylorville ...	462	1.6	5	..			180,000	122,000	58,000
	Totals								495,616	317,878	177,738
	Averages .....										.....

Whole number of openings reported in 1897, 6.

Whole number of openings reported for 1898, 6.

Calhoun County, 1898—Concluded.

Number.	VALUES.		EMPLOYEES.				WAGES.				Kegs of powder used.	ACCI- DEN'S		Capacity of mine— tons.
	Av. value of lump per ton at the mine.	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly.	Days of active operation.		Fatal.	Non-fatal.	
							For hand- mining.	For machine- mining.						
1	\$1 50	\$7,339	8	7	2	17	.....	\$0 52	M.	258	175	....	.....	6,000
	.....	\$7,339	8	7	2	17	.....	.....	.....	.....	175	....	.....	6,000
	\$1 50	.....	.....	.....	.....	.....	.....	\$0 52	.....	258	.....	.....	.....	.....

Christian County, 1898—Concluded.

Number.	VALUES.		EMPLOYEES.				WAGES.			Days of active operation.	Kegs of powder used.	ACCI- DEN'S		Capacity of mine— tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly.					
							For hand- mining.	For machine- mining.						
1	\$1 10	\$44,220	140	20	10	170	\$0 50	.....	S-M.	130	85	..	4	120,000
2	90	8,137	6	4	3	13	40.7	.....	.....	250	420	....	..	20,000
3	75	53,408	135	37	22	194	* 27 ¹ / ₄	.....	.....	115	509	....	1	700,000
4	75	48,004	180	46	31	257	27 ¹ / ₄	.....	.....	77	562	....	1	312,000
5	75	41,613	112	30	10	152	27 ¹ / ₄	.....	.....	110	370	....	1	200,000
6	70	108,600	140	40	25	205	.....	\$0 27 ¹ / ₂	.....	160	1,200	....	..	240,000
.....	.....	\$303,982	713	177	101	991	.....	.....	.....	.....	3,146	....	7	1,592,000
.....	\$0 77	.....	.....	.....	.....	.....	\$0 31.3	\$0 27 ¹ / ₂	.....	140	.....	....	..	.....

* Price paid up to April 1, when all mines at Pana suspended rather than pay scale price of 40 cents.

Greene County—Fifth District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.							OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.		Total tons produced.	Tons of lump.	Tons of other grades
1	J. T. Revis, lessee....	Roodhouse ...	27	4.6	*	Sh.	Ho.	M.		2,340	2,340	.....
2	Jas. Minks	"	20	2.4	1	Sl.	Ho.	"		220	220	.....
3	E. Griffiths	"	50	2.6	1	Sh.	Ho.	"		1,340	1,340	.....
4	Thos. Griffiths No. 1..	Whitehall	47	4.6	*	"	"	"		2,140	2,140	.....
5	" No. 2..	"	50	4.6	*	"	"	"		1,280	1,280	.....
6	Hudson, Tucker & Co.	"	60	2.3	1	"	"	"		1,200	1,200	.....
Totals										8,520	8,520	.....
Averages .....												.....

* Coal pocket, cannel and bituminous coal.

Whole number of openings reported in 1897, 5.

Number of new mines or places opened during the year, 1.

Whole number of openings reported for 1896, 6.

Jersey County—Fifth District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.							OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.		Total tons produced.	Tons of lump.	Tons of other grades
1	Richard Motley	Delhi.....	25	2.6	1	Sl.	Hd	M.		1,680	1,680	.....
Totals										1,680	1,680	.....
Averages .....												.....

Number of new mines or places opened during the year, 1.

Whole number of openings reported for 1896, 1.

Greene County, 1898—Concluded.

Number.	VALUES.		EMPLOYEES.				WAGES.		Paid monthly, semi-monthly or weekly.	Days of active operation.	Kegs of powder used.	ACCI-D'NTS		Capacity of mine—tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners employed.	Other employes under ground.	All employes above ground.	Total employes.	Price paid per gross ton.							
							For hand-mining.	For machine-mining.						
1	\$1 25	\$2,925	4		1	5	\$0 62½		G.M.	240				2,800
2	1 25	275	1			1	81¼			110				600
3	1 25	1,675	3		1	4	81¼			210				1,000
4	1 25	2,675	4		1	5	62½			225				2,600
5	1 25	1,600	2		1	3	62½			210				1,800
6	1 25	1,500	4		1	5	81¼			165				2,400
		\$10,650	18		5	23								11,200
	\$1 25						\$0 68½			193				

Jersey County, 1898—Concluded.

Number.	VALUES.		EMPLOYEES.				WAGES.			Days of active operation.	Kegs of powder used.	ACCI- D'NTS		Capacity of mine— tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly					
							For hand mining.	For machine mining.						
1	\$1 25	\$2,100	4	.....	.....	4	\$1 00	.....	W.	210	.....	.....	.....	2,000
		\$2,100	4	.....	.....	4		.....			.....	.....	.....	2,000
	\$1 25			.....	.....		\$1 00	.....		210	.....	.....	.....

Morgan County—Fifth District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades
1	F. Wagstaffe.....	Murryville....	60	4.0	5	Sh.	Ho.	M.	1,800	1,800	.....
	Totals .....	.....	.....	.....	.....	.....	.....	.....	1,800	1,800	.....
	Averages .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Number of new mines or places opened during the year, 1.

Whole number of openings reported for 1898, 1.

Macoupin County—Fifth District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.							OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades.	
1	Consol. Coal Co., No. 6	Staunton	322	6	5	Sh.	S.	M.	171,200	120,490	50,710	
2	.. No. 7	.....	360	6.8	5	..	..	..	77,873	55,381	22,492
3	.. No. 8	Mt. Olive	410	8	5	..	..	..	143,772	95,433	48,339
4	.. No. 10	.....	431	8	5	..	..	..	118,579	82,505	36,074
5	.. Gillespie	Gillespie	355	7	5	..	..	..	50,244	37,226	13,018
6	.. Hornsby	Hornsby	388	6.6	5	..	..	..	32,797	26,634	6,163
7	Carlinsville Coal Co.	Carlinsville	290	6	5	..	..	B.	39,078	23,447	15,631
8	Nilwood Carbon C. Co.	Nilwood	325	6	5	..	..	..	24,550	19,640	4,910
9	O'Garra King Coal Co.	Greenridge	350	6	5	..	..	..	103,400	58,000	45,400
10	Girard Coal Co.	Girard	354	6.6	5	..	..	M.	88,971	65,547	23,424
11	Virden Coal Co.	Virden	320	7.6	5	..	..	B.	89,871	46,322	43,549
12	Chi. Virden C. C. No. 1	.....	320	7.6	5	..	..	..	177,623	96,342	81,281
13	Madison Coal C. No. 5	Mt. Olive	435	8	5	..	..	M.	139,817	102,800	37,017
14	Wm. Neil & Co., lessee	Bunker Hill	250	5.6	5	..	..	..	6,046	4,348	1,698
15	Sam Curtis	Rockbridge	55	7	..	..	Ho.	..	420	420	.....
16	J. T. Harbaugh	Chesterfield	5.6	..	..	D.	Hd	..	225	225	.....
17	Thos. Rands .....	.....	5	..	..	..	..	..	80	80	.....
18	Robt. McCormick .....	.....	5	..	..	..	..	..	140	140	.....
19	C. Lueking	Fosterburg	75	3.9	5	Sh.	Ho.	..	150	150	.....
20	W. H. A. Bodi	Chesterfield	5.6	..	..	D.	Hd	..	90	90	.....
Totals .....			.....	.....	.....	.....	.....	.....	1,264,926	885,220	429,706
Averages .....			.....	.....	.....	.....	.....	.....	.....	.....	.....

Whole number of openings reported in 1897, 17.

Number of new mines or places opened during the year, 3.

Whole number of openings reported for 1898, 20.

Morgan County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.				WAGES.			Days of active operation.	Kegs of powder used.	ACCI- DEN'S		Capacity of mine— tons.
	Av. value of lump per ton at the mine.	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly.					
							For hand- mining.	For machine- mining.						
1	\$1 50	\$2,700	3	.....	1	4	\$0 87 ¹ / ₂	.....	S-M.	286	.....	.....	4,000
	.....	\$2,700	3	.....	1	4	.....	.....	.....	.....	.....	.....	4,000
	\$1 50	.....	.....	.....	.....	.....	\$0 87 ¹ / ₂	.....	.....	286	.....	.....	.....

Macoupin County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.				WAGES.			Days of active operation.	Kegs of powder used.	ACCI- DENTS		Capacity of mine— tons.
	Av. value of lump per ton at the mine.	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly.					
							For hand- mining.	For machine- mining.						
1	\$0 90	\$123,654	164	48	22	234		\$0 33	S-M.	125	807		7	360,000
2	90	56,590	80	34	17	131		33	..	122	419	..	1	195,000
3	90	100,391	164	52	20	236		33	..	132	648	1	1	300,000
4	90	85,077	121	61	18	200		33	..	122	527	..	2	204,000
5	95	39,921	70	25	15	110		33	..	122	314	..	2	135,000
6	95	27,459	48	22	13	83		33	..	94	234	1	.....	120,000
7	80	22,665	60	11	10	81	\$0 40		..	162	1,000	1	.....	140,000
8	65	13,748	50	7	6	63	32½		..	125	642	.....	.....	50,000
9	70	59,760	125	14	10	149	32½		..	152	2,500	.....	6	250,000
10	75	58,530	100	20	12	132		33	..	150	1,300	.....	.....	200,000
11	70	49,845	66	16	11	93	33½		..	128	1,900	.....	.....	200,000
12	60	74,061	244	39	26	309	32½		..	126	4,482	.....	2	200,000
13	65	79,776	159	47	25	231		33	..	136	680	.....	.....	200,000
14	1 12 5	5,740	8	2	3	13		33	W.	210	60	.....	.....	50,000
15	1 25	525	2	.....	1	3	75	.....	..	120	21	.....	.....	50,000
16	1 25	281	2	.....	.....	2	75	.....	..	112	.....	.....	.....	50,000
17	1 25	100	1	.....	.....	1	75	.....	..	45	.....	.....	.....	50,000
18	1 25	175	2	.....	.....	2	75	.....	..	50	.....	.....	.....	50,000
19	1 25	187	2	.....	1	3	75	.....	S-M.	60	.....	.....	.....	50,000
20	1 25	112	1	.....	.....	1	75	.....	W.	15	.....	.....	.....	50,000
	.....	\$798,597	1,469	398	210	2,077	.....	.....	.....	.....	.....	.....	.....	.....
	\$0 72 5	.....	.....	.....	.....	.....	\$0 33 1	\$0 33	.....	118	.....	.....	.....	.....

* From July 2, 1897, until April 1, 1898, 32¹/₂ cents; from April 1, 1898, to 1899, 33 cents.† Price paid to April 1, when mines were closed rather than pay 32¹/₂ cents.

Montgomery County—Fifth District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.							OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades	
1	Coffeen Coal & C. Co.	Coffeen	534	8	5	Sh.	S.	B.	170,000	113,000	57,000	
2	Hillsboro Coal Co.	Hillsboro.....	440	7.6	5	..	..	Bo.	54,609	36,355	18,254
3	Litchfield M. & M. Co.	Litchfield.....	500	3.6	..	..	..	M.	12,400	8,400	4,000
4	Litchfield M. & P. Co.	.....	684	6.3	..	..	..	B.	43,020	30,820	12,200
5	Montgomery Coal Co.	Paisley	534	8	5	..	..	..	10,638	7,980	2,658
6	Raymond M. Co	Raymond.....	434	3.3	5	..	..	M.	4,000	3,000	1,000
Totals									294,667	199,555	95,112	
Averages.....												

Whole number of openings reported in 1897, 5.

Number of new mines or places opened during the year, 1.

Whole number of openings reported for 1898, 6.

Scott County—Fifth District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.							OUTPUT.		
			Depth of coal—feet.	Thickness of coal feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades	
1	Wm. H. Bates & Co..	Winchester..	96	2.6	1	Sh.	St.	B.	19,955	19,155	800	
2	Jackson Jones .....	.. ..	..	2.6	1	D.	Hd.	..	386	386	.....
3	Wm. Parker! .....	.. ..	..	2.6	1	..	..	..	204	204	.....
4	Chas. McGuire	Aley. ....	..	2.6	1	..	..	..	752	752	.....
5	W. Armitage	Exeter .....	..	2.6	1	..	..	..	40	40	.....
Totals.....									21,337	20,537	800	
Averages.....												

Whole number of openings reported in 1897, 7.

Number of mines exhausted or abandoned during the year, 2.

Whole number of openings reported for 1898, 5.

Sangamon County—Fifth District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades
1	Auburn Coal Co.	Auburn	268	7.6	Sh.	S.	B.		20,000	10,000	10,000
2	C. Virden C. Co. No. 2	.....	280	7.6	.....	.....	.....		105,106	53,604	51,502
3	Barclay C. & M. Co. ...	Barclay	249	5.9	.....	.....	.....		72,004	58,624	13,380
4	Cantrall Coöp. C. Co. ...	Cantrall	213	6.7	.....	.....	.....		95,268	82,671	12,597
5	M. & Senseney, lessee	Chatham	259	7.4	.....	.....	.....		27,968	18,645	9,323
6	Wabash Coal Co.	Dawson	259	5.4	.....	.....	.....		75,281	48,333	26,348
7	B. Diamond C. & T. Co.	Hes Junction.	245	5.9	.....	.....	.....		90,400	72,400	18,000
8	Junction Mining Co. ...	.....	250	5.9	.....	.....	.....		45,300	35,300	10,000
9	Woodside Coal Co.	Springfield ...	250	5.9	.....	.....	.....		78,398	65,844	13,154
10	Horse Creek Coal Co. ...	Pawnee	324	7	.....	.....	.....		10,839	9,858	901
11	S. & P. P. Coal Co. ...	Plt. Plains	123	5.6	.....	.....	.....		11,400	8,350	2,450
12	Clear Lake Coöp. C. Co.	Bissell	220	5.9	.....	.....	.....		55,650	41,740	13,910
13	Riverton C. Co. No. 1.	Riverton	200	5.9	.....	.....	.....	"B"			
14	" " " " No. 2.	.....	232	5.9	.....	.....	.....		162,862	115,273	47,589
15	Spaulding Coal Co. ...	Spaulding	238	5.9	.....	.....	.....		61,049	45,788	15,261
16	C. Coöp. C. Co. No. 1.	Springfield ...	240	5.9	.....	.....	.....		23,000	20,000	3,000
17	" " " " No. 2.	" "	240	5.9	.....	.....	.....		96,770	75,650	21,120
18	Citizens' C. M. Co. "A"	" "	210	5.9	.....	.....	.....		152,415	100,135	52,280
19	" " " " "B"	" "	205	5.6	.....	.....	.....	*
20	Sangamon Coal Co. ...	.....	265	5.9	.....	.....	.....		92,077	73,884	18,193
21	Springfld Coöp. C. Co.	Ridgely	250	5.9	.....	.....	.....		65,280	49,000	16,280
22	Springfld C. M. & T. Co.	Springfield ...	250	5.9	.....	.....	.....		89,235	61,969	27,266
23	Starnes' Coal M. Co. ...	.....	250	5.9	.....	.....	.....		112,777	73,305	39,472
24	Springfld Iron Co., les	Ridgely	245	5.9	.....	.....	.....		99,142	73,362	25,780
25	West End Coal Co.	Springfield ...	150	5.8	.....	.....	.....		61,825	50,685	11,141
26	Williamsville C. Co. ...	Williamsville ..	269	5.8	.....	.....	.....		56,006	37,092	18,914
27	Golladay & Brandt...	Salisbury	150	5.8	5	.....	.....		3,210	2,890	330
Totals									1,763,863	1,285,672	478,191
Averages											

Whole number of openings reported in 1897, 26.

Number of new mines or places opened during the year, 1

Whole number of openings reported for 1898, 27.

"B" Riverton Coal Co. No. 1 not worked during the year.

* Output of shaft "B" included in that of shaft "A".

Sangamon County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.				WAGES.		Paid monthly, semi-monthly or weekly	Days of active operation.	Kegs of powder used.		ACCI- DEN'S		Capac- ity of mine- tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.				Fatal.	Non-fatal.			
							For hand- mining.	For machine, mining.							
1	\$0 80	\$10,000	25	6	4	35	\$0 40.7	†	S-M.	150	600	...	...	...	40,000
2	60	42,463	123	18	13	154	37.7	...	...	105	3,663	1	7	...	320,000
3	79	50,996	70	12	10	92	40.7	...	...	214	2,400	...	...	...	180,000
4	66 ³ / ₄	57,947	75	19	9	103	40.7	...	...	235	3,352	...	...	...	175,000
5	75	16,314	30	5	6	41	40.7	...	...	110	800	...	...	...	75,000
6	80	49,686	72	17	10	99	40.7	...	...	143	2,566	...	...	...	200,000
7	75	61,500	80	14	16	110	40.7	...	...	210	2,900	...	...	...	190,000
8	1 00	39,300	60	7	8	75	40.7	...	...	150	1,747	...	...	...	182,500
9	80	57,937	95	16	12	123	40.7	...	...	165	2,646	...	1	...	200,000
10	1 37.5	14,002	10	4	7	21	40.7	...	...	212	275	...	...	...	10,000
11	90	8,790	20	4	3	27	40.7	...	...	200	350	...	...	...	36,500
12	75	36,869	37	9	9	55	40.7	...	...	220	2,225	...	...	...	100,000
13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	100,000
14	75.6	112,987	145	17	22	184	40.7	...	S-M.	210	5,487	...	...	...	300,000
15	75	40,445	75	12	8	95	40.7	...	...	152	2,348	...	...	...	100,000
16	71	14,620	27	6	4	37	40.7	...	...	215	865	...	...	...	30,000
17	85	68,527	75	18	12	105	40.7	...	...	235	3,725	...	2	...	180,000
18	74	85,079	155	14	13	182	40.7	...	...	235	5,472	...	2	...	220,000
19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	50,000
20	76	61,792	110	16	11	137	40.7	...	S-M.	183	3,277	1	...	...	340,000
21	80	43,270	60	10	10	80	40.7	...	...	175	2,105	...	1	...	120,000
22	75	58,746	80	18	17	115	40.7	...	...	153	3,038	...	1	...	220,000
23	75	68,794	90	28	9	127	40.7	...	...	183	3,710	...	1	...	180,000
24	84.7	68,583	88	32	21	141	40.7	...	...	240	3,304	...	...	...	190,000
25	90.3	51,584	85	10	7	102	40.7	...	...	200	1,995	...	...	...	187,000
26	80	35,348	55	10	10	75	40.7	...	...	175	1,500	...	...	...	150,000
27	1 50	4,485	4	...	1	5	40.7	...	...	225	80	...	...	...	7,000
.....	...	\$1,160,064	1,746	322	252	2,320	...	...	...	...	60,430	2	15	...	4,043,000
...	\$0 78.2	...	...	...	...	...	\$0 40.4	...	...	188	...	...	...	...	...

† 37.7 cents at all mines until April 1, 1899; 40.7 cents until July 1, 1899, at all but one.

Shelby County—Fifth District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades
1	Moweaqua C.M.&M.C.	Moweaqua....	618	5.4	5	Sh.	St.	B. †	62,628	36,660	25,968
2	M. Brophy.....	Shelbyville...	90	2.3	15	..	Ho.	M.	1,400	1,400	.....
3	Kearney Bros.....	..	48	2.2	15	..	..	..	210	210	.....
4	John Richardson.....	..	100	2.2	15	..	..	..	2,000	2,000	.....
5	B. F. Stretch.....	..	98	2.2	15	..	St.	..	810	810	.....
6	Samuel Igo.....	..	60	2.2	15	..	Ho.	..	420	420	.....
7	John Stockdale.....	Robinson Cr'k	..	2.2	16	D.	Hd	..	280	280	.....
8	Gallagher & Sons.....	Mode.....	60	2.2	15	Sh.	Ho.	..	640	640	.....
Totals.....									68,388	42,420	25,968
Averages.....											

† Both.

Whole number of openings reported in 1897, 12.

Number of mines exhausted or abandoned during the year, 4.

Whole number of openings reported for 1898, 8.

Shelby County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.				WAGES.		Paid monthly, semi-monthly or weekly.	Days of active operation.	Kegs of powder used.		ACCI-DENTS		Capacity of mine—tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners employed.	Other employes under ground.	All employes above ground.	Total employes.	Price paid per gross ton.				Fatal.	Non-fatal.			
							For hand-mining.	For machine-mining.							
1	\$1 17	\$58,577	75	31	15	121	\$0 42.5	\$0 25.5	S. M.	225	1,250	..	1	100,000	
2	00	2,800	4	.....	1	5	1 37 ¹ / ₂	.....	..	210	.....	.....	.....	3,200
3	25	472	2	.....	1	3	1 37 ¹ / ₂	.....	..	200	.....	.....	.....	350
4	25	4,500	5	.....	1	6	1 37 ¹ / ₂	.....	..	220	.....	.....	.....	4,000
5	25	1,822	5	.....	1	6	1 37 ¹ / ₂	.....	..	100	.....	.....	.....	3,000
6	25	945	3	.....	1	4	1 37 ¹ / ₂	.....	..	200	.....	.....	.....	750
7	1 75	490	2	.....	.....	2	1 00	.....	..	100	.....	.....	.....	600
8	25	1,440	4	.....	1	5	1 37 ¹ / ₂	.....	..	90	.....	.....	.....	1,000
.....	.....	\$71,046	100	31	21	152	.....	.....	.....	.....	1,250	..	1	112,900
.....	\$1 25.4	.....	.....	.....	.....	.....	\$0 48.8	\$0 25.5	.....	168	.....	.....	.....	.....

* Paid 40 cents for hand mining for two-thirds of coal, and 42¹/₂ cents for one-third coal.

† Paid 28 cents for machine mining for two-thirds of coal, and 25¹/₂ cents for one-third coal.

Recapitulation by Counties—

COUNTY.	MINES.				PRODUCTS.				VALUES.		
	Number of mines.	Shipping mines.	Mines in local trade.	New mines. Abandoned mines.	Total tons pro- duced.	Tons of lump coal.	Tons of other grades.	Tons shipped.	Estimated capacity (in tons) of existing mines.	Average value per ton of lump at the mine.	Aggregate value of total product.
Calhoun	1	1	1	..	4,893	4,893	.....	.....	6,000	\$1 50	\$7,339
Christian ...	6	6	...	..	495,616	317,878	177,738	441,095	1,592,000	77	303,982
Greene.....	6	..	6	1	8,520	8,520	.....	.....	11,200	1 25	10,650
Jersey	1	..	1	1	1,680	1,680	.....	.....	2,000	1 25	2,100
Macoupin...	20	13	7	3	1,264,926	835,220	429,706	1,116,363	2,976,750	72.5	798,597
Montgome'y	6	6	....	1	294,667	199,555	95,112	246,857	762,500	77.4	193,141
Morgan.....	1	..	1	1	1,800	1,800	.....	.....	4,000	1 50	2,700
Sangamon..	25	24	1	1	1,763,863	1,285,672	478,191	1,493,021	4,043,000	78.2	1,160,064
Scott.....	5	1	4	..	21,337	20,537	800	17,655	27,200	1 31	27,375
Shelby.....	8	1	7	..	63,388	42,420	25,968	51,376	112,900	1 25.4	71,046
Totals.....	79	51	28	8	3,925,690	2,718,175	1,207,515	3,366,367	9,537,550	.....	\$2,576,994
Averages..	.....	.....	.....	.....	.....	.....	.....	.....	.....	\$0 80	.....

Whole number of openings reported in 1897, 79.

Number of new mines or places opened during the year, 8.

Number of mines exhausted or abandoned during the year, 8.

Whole number of openings reported for 1898, 79.

Fifth District—1898.

EMPLOYEES.			Average number of days of active operation.	Number of kegs of powder used.	CASUALTIES.				WAGES.		MACHINES.		
Number of miners.	Number of other employees.	Total employees.			Killed.	Injured.	Widows.	Children.	Average price paid per gross ton.		Number of mines using machines.	Number of machines in use.	Total tons cut by machinery.
									For hand mining.	For machine mining.			
8	9	17	258	175	...	...	...	...	\$0 52	1	1	4,893	
713	278	991	140	3,146	...	7	...	...	\$0 31.3	27.5	1	14	180,000
18	5	23	193	...	...	...	...	...	68.5	...	...	...	...
4	...	4	210	...	...	...	...	...	1 00	...	...	...	...
1,469	608	2,077	118	15,621	3	23	...	...	33.1	33	10	108	822,336
317	133	450	208	4,785	...	2	...	...	40.2	50	2	6	13,000
3	1	4	286	...	...	...	...	...	87.5	...	...	...	...
1,746	574	2,320	189	60,430	2	15	...	...	40.4	...	...	...	...
46	9	55	147	837	...	...	...	...	81.3	...	...	...	...
100	52	152	168	1,250	...	1	...	...	48.8	25.5	1	4	34,449
4,424	1,669	6,093	...	86,244	5	48	...	...	...	...	15	133	1,054,678
...	...	...	191.6	...	...	...	...	...	\$0 38.7	\$0 31.95	...	...	...

SIXTH INSPECTION DISTRICT—1898.

Counties: St. Clair, Madison, Clinton, Marion, Bond.

JOHN DUNLOP, *Inspector, Centralia.*

HON. DAVID ROSS, *Secretary,*

State Bureau of Labor Statistics, Springfield, Illinois:

SIR:—In compliance with section 12 of the general mining law of the State of Illinois, I have the honor to submit to you the annual report of the Sixth Inspection District for the year ending July 1, 1898, the same being the third annual report for the Sixth district as at present defined, and the fifteenth annual report for the general region comprising the coal producing counties of St. Clair, Madison, Clinton, Marion and Bond.

This report gives tabulated statements, by counties, of the number of mines operated during the year, showing the average number of miners and other employés; the total output of all grades of coal; the average value of coal at the mine, and the aggregate value of total product; the number of shipping and local mines; the casualties in and around the mines; the average number of days worked; the quantity of powder used; the number of machines in use, and the total tons produced by machines.

The following summary, as taken from the statistical tables, is given for the fiscal year 1898:

Number of counties in which coal is produced.....	5
Total number of mines.....	98
Shipping mines.....	72
Local mines.....	26
New mines.....	1
Abandoned mines.....	4
Total tonnage.....	3,459,932
Tons of lump coal.....	2,713,399
Tons of other grades.....	746,533
Tons shipped.....	3,021,521
Estimated capacity in tons of existing mines.....	7,180,900
Average value of lump coal per ton at the mine.....	80.740
Aggregate value of total product.....	\$2,248,723
Number of miners.....	3,445
Number of other employés.....	1,217
Total employés.....	4,662
Average number of days of active operation for all mines.....	164
Number of kegs of powder used.....	70,766
Fatal accidents.....	8
Non-fatal accidents.....	79
Number of widows.....	30
Number of orphans.....	30
Number of mines using machines.....	129
Number of machines in use.....	25,991
Total tons cut by machines.....	2,696
Number of tons produced to each fatal accident.....	6,122
Number of tons produced to each non-fatal accident.....	342
Number of persons employed to each fatal accident.....	
Number of persons employed to each non-fatal accident.....	

Coal production by counties, with increase or decrease in each year for the years ending June 30, 1897, and 1898:

COUNTIES.	TOTAL OUTPUT OF ALL GRADES OF COAL—IN TONS.		Increase.	Decrease.
	1898.	1897.		
St. Clair	1,600,752	1,718,194		117,442
Madison	630,769	780,921		150,152
Clinton	417,594	328,184	89,400	
Marion	714,513	626,850	87,663	
Bond	96,314	104,256		7,942
Total	3,459,932	3,558,405	177,063	275,536
Decrease				275,536
Increase				177,063
Net decrease				98,473

The counties of St. Clair, Madison and Bond show a decrease of 275,536 tons from that of last year, 1897; Clinton and Marion show an increase of 177,063 tons in the same time.

This is owing to the fact that the mines at Centralia, in Marion county, only lost 20 days during the general strike, and that the Odin mine lost no time by said strike.

The Breese coal mine lost but 19 days and the Consolidated Coal Company, at the same place, lost 32 days. The same number of days was lost at Trenton mines, caused by the general strike.

Considering that the mines at Centralia, Marion county, have not been working, nor the mine at Sandoval, since the first of April, 1898, they have lost in the number of days a number equal to that lost in St. Clair, Madison and Bond counties during the long strike in the earlier part of the year. They worked during the period of the year when the demand for coal is greatest. As a rule, during the spring and summer months the work is not more than half time. Therefore, the strike at the above named mines at the present time has had very little effect on the capacity of the mines for the past fiscal year.

Labor Troubles.—Since the inauguration of the general strike July 1, 1897 the district has not been free from strikes at any one time during the year. My own observation is that strikes are a severe measure to accomplish any desired result; they involve great distress and hardship to all those interested both directly and indirectly, in mining, and not alone to miners or operators but to many others, owing to the close relation of the coal trade with the industrial and commercial world.

The results attained by the late general strike have been phenomenal. It has completely revolutionized the wage system in this district. All mines working in the district at the present time are paid by the ton, weighed before screening, with the exception of one mine, where machine men and shooters are paid by the day, the loaders only being paid by the ton.

The mines at which there are strikes at the present time are those of the Pittenger & Davis Mining and Manufacturing Company, and of the Centralia

Mining and Manufacturing Company, at Centralia, and the Sandoval Coal Company, Sandoval, in Marion county. They have been on strike since April 1, 1898.

The mine of the Sorento Prospecting and Manufacturing Company, Sorento, Bond county, has not been worked for the last two months.

Messrs. Tirre & Sons, Lenzburg, St. Clair county, have only been working a few men since April.

New Mines in Contemplation.—The Henriette Coal Company, Edwardsville, has sunk a new shaft at Edwardsville, on the C., P. & St. L. railroad. The coal was struck at a depth of 184 feet 6 inches; the thickness of coal is 7 feet. A nice tippie has been built with all the modern improvements.

A new shaft is being sunk at New Baden, on the L. E. & St. L. railroad, by the Muren Coal and Ice Company of Belleville. The expectations are that they will strike the Trenton seam.

A few of the citizens of Germantown have organized a stock company and are sinking a new shaft about half a mile east of the town on the L. E. & St. L. railroad. Much trouble has been experienced in sinking through quick sand, but they have got through it safely and are making good progress.

The Home Trade Coal Company of Edwardsville has sunk a shaft at Edwardsville, solely for local trade, as it is not located on any railroad.

A new shaft has been sunk at Marissa, by the Eureka Coal Company. The depth of the shaft is 114 feet; thickness of coal 6 feet; commenced sinking December 1, 1897; struck coal January 27, 1898.

Improvements.—The Mount Olive and Staunton Coal Company has completed its escapement shaft and has erected a new fan, improving the ventilation, which was needed very much. This shaft was formerly owned by Henry Voge, of Staunton, and was ventilated by the hoisting and lowering of the cages and the action of doors that were moved back and forward as necessity required. By this method the ventilation was insufficient for the number of men at work. The present company is putting in electric cutting and drilling machines, which are being installed by the Jeffrey Electric Company.

The Madison Coal Company has erected a new fan at the No. 4 Glen Carbon mine. The diameter of fan is 20 feet, built so that it can be used for either exhaust or discharge.

Electric drilling machines have been put in at the mines of the following companies during the latter part of the fiscal year: The Tipton Coal Co., Lenzburg, has put in two drills. The Johnson Coal and Manufacturing Company has put in one drill at the "O. K." mine.

The Hippard Coal Company, Belleville, has put in two drills.

These mines are the first in this district to put in electric drills to cut off the solid, and they have given satisfaction up to the present time.

The Centralia Mining and Manufacturing Company has installed a new electric plant installed by the Jeffrey Electric Company. The plant consists of five cutting machines, three drills and one locomotive wheel, and the whole making a complete outfit. This will make the Centralia mine one of the best equipped mines in the Sixth district.

The following shafts have been retimbered during the last year: The Millstadt shaft, the Skellet Coal Company's shaft, the Lumaghi Coal Company's shaft.

The Hydraulic Pressed Brick Company has commenced mining coal at their shaft. They have hoisted about 5,000 tons. Their return came too late to be placed on the tabulated report. This company has organized a coal company known as the Independent Coal Company, Collinsville. The shaft is located near Cantine.

Escapement shafts are in progress as follows: At the mine of the Trenton L. & P. Coal Company, Trenton. The Kinmundy Coal Company's escapement shaft is down 200 feet. The contract is let to Frank Seymour to put it down. The progress at the Salem mine is slow, but they are working at it with a small force.

I notice in the last year's report of the Sixth district that a change had been made with regard to the geological number of the seams at the Troy, Brookside, Trenton, Bennett and Darrow mines. In the opinion of my predecessor, Mr. Cumming, the seams at all these places present the same characteristics and should all be reported as the No. 7 seam, and not the No. 6, as they have been generally considered. Upon examination of the fossils, and of the general character of the formation at these points, I am disposed to agree with Mr. Cumming, and have consequently designated the seams at the mines named as No. 7.

Fatal Accidents.—July 13, 1897, at the Bennett mine near Lebanon, belonging to the Lebanon Coal and Machine Association, Peter Hoppen, a loader, dropped dead while at work. He was loading a car with coal. The entry in which the rooms were located where he had worked that morning was driven 400 feet ahead of the air. Four rooms and a cross cut were being worked inside of the last cross cut. The rooms were all new and were just being widened out. They were mined by machines and the blasting was done about 4 o'clock in the morning by the night shift, about four shots to each room. The only ventilation available while mining the rooms was the exhaust from the machines; but as the compressor stopped when the night shift quit work, there was no provision made for removing the obnoxious gases generated by the explosion of powder used for shooting the coal. As the place was insufficiently ventilated when the work started at 7 o'clock in the morning, the air could not possibly be fit for respiration. Mr. Hoppen complained to his partner of his head, and assigned the condition of the air as being the cause. He had worked in the first room inside of the last cross cut all the morning up to 11:30 a. m., and had just moved into the next room with his partner, 80 feet further in the entry, where he had worked about ten minutes. He suddenly fell over backwards. His partner immediately gave the alarm and called for help, which was prompt in responding, and he was carried back to the air course, where every effort was made to revive him, but he expired in a few minutes. The verdict of the coroner's jury was that death resulted from heart disease; this was verified by the circuit court in a suit for damages. He was 48 years old and leaves a widow and five children.

August 25, 1897, at the escapement shaft of the Sandoval mine, Fred Heaver was hoisted up to the pulley and precipitated down the shaft, which was 600 feet deep, and was instantly killed. The fireman or night watchman, W. H. Steiner, was to let him down to the pump, which needed some attention. Instead of letting him down he hoisted him up by mistake, with the above result. Deceased was 60 years of age and leaves a widow and one child.

October 9, 1897, Peter Yagge, a miner in the Turkey Hill or Moser mine, was instantly killed by a premature shot in the mine. His age was 55 years and he leaves a widow and six children.

November 13, 1897, Fred Felax, a loader in the Odin coal mine, was seriously injured by falling coal and died from the effects of it that same evening. He leaves a widow and four children. He was 48 years of age.

November 20, 1897, Richard Jones, a machine helper in the Bennett mine, near Lebanon, had his hips and back seriously injured by falling coal in the mine. He died four hours afterward from the effects of the injury. His age was 28 years, and he was unmarried.

January 11, 1898, Louis Saler, a loader, was killed in the Centralia Mining and Manufacturing Company's mine. After loading his coal it is supposed that he started to cut down a piece of top coal. Over this piece of coal there was a large piece of sulphur rock. It was known to be dangerous. While in the act of cutting the coal the weight of the above rock broke the coal suddenly, which fell upon him, causing instant death.

January 26, 1898, Chas. Denman, a driver, 26 years of age, married only a few months prior to his death, was killed by falling down the shaft of the Odin Coal Company, which is 714 feet deep. He had been working on the night shift. After his work was done, which was between 5 and 6 o'clock in the morning, he and another workman by the name of Walter Baugh were being hoisted out of the mine. Walter says that they had a light when the cage started, but that it went out while they were being hoisted. As it was still dark on top, they were unable to see when they got to the place where it was customary to let them off, which was the lower landing. The engineer said he must have had the cage eight or ten feet above the said landing when Charles Denham stepped off of the cage. The force of his fall, stepping from such a height above the landing, must have caused him to stumble and fall back into the shaft.

February 4, 1898, J. C. Sanderson, a loader in the Smith coal company's mine, met his death while in the act of loading a car at the face of the main entry, in the top seam. A large piece of rock, falling on him, from the effects of which he died shortly afterward. He was 35 years old and leaves a widow and two children.

Respectfully submitted,

CENTRALIA.

State Inspector of

Fatal Casualties—Sixth District—1898.

Date.	Name.	Age.	Occupation.	Residence.	Married.	Widow.	Children.	Single.	Dependent.	Cause of Accident.
1897.										
July 13	Petter Hoppen.....	48	Loader.....	Lebanon.....	1	1	5	..	6	Heart disease.....
Aug. 25	Fred Heaver.....	60	Engineer.....	Sandoval.....	1	1	1	..	2	Falling down shaft.....
Oct. 9	Peter Yagge.....	55	Miner.....	Rentehler.....	1	1	6	..	7	Flying coal from shot.....
Nov. 13	Fred Felax.....	48	Loader.....	Odin.....	1	1	4	..	5	Falling coal.....
Nov. 20	Richard Jones.....	28	Mach. help'r.....	Lebanon.....	..	..	..	1	..	Falling roof.....
1898.										
Jan. 11	Louis Saler.....	37	Loader.....	Centralia.....	1	1	1	..	2	Falling coal and roof.....
Feb. 26	Chas. Demman.....	26	Driver.....	Odin.....	1	..	..	..	1	Falling down shaft.....
Feb. 5	J. C. Sanderson.....	30	Loader.....	Smithboro.....	1	1	2	..	3	Falling roof.....
	Totals.....				7	7	19	1	26	

Total fatal casualties, 8.

Recapitulation of Fatal Casualties—Sixth District—1898.

Residence.	No.	Occupation.	No.	Nature of Casualty	No.	Colliery.	No.
Centralia.....	1	Driver.....	1	Falling coal.....	1	Centralia M. & M. Co.	1
Lebanon.....	1	Engineer.....	1	Falling coal & roof	1	Lebanon C. & M. Assn.	2
Odin.....	1	Loaders.....	4	Falling down shaft	2	Moser, J. W.—Turkey	1
Sandoval.....	2	Mach. helper.....	1	Falling roof.....	2	Hill Mine.....	1
Smithboro.....	1	Miner.....	1	Fly'g coal fr'm s'ht	1	Odin Coal Co.....	2
				Heart disease.....	1	Sandoval Coal Co.....	1
						Smithboro Coal Co.....	1
Totals.....	8		8		8		8

Non-Fatal Casualties—Sixth District—1898.

Date.	Name.	Age.	Residence.	Married.	Single.	Children.	Dependents.	Character of Injury.	Time lost—days.
1897.									
July 6	Frank Iticker.....	25	Breese.....	..	..	1	..	Collar bone broken.....	30
.. 18	Wm Bohner.....	23	Trenton.....	..	..	1	..	Back and hips bruised.....	30
.. 19	Geo. Schiefelrucker.....	28	Freeburg.....	1	..	2	3	Shoulders and head bruised.....	20
Aug. 14	Ed Randle.....	44	Belleville.....	1	..	6	7	Foot bruised.....	30
.. 27	Jno. Flannigan.....	30	Odin.....	1	..	..	1	Arm bruised and cut.....	14
.. 30	Geo. Byers.....	42	Centralia.....	1	..	3	4	Finger smashed.....	10
Sept. 9	Church Emmet.....	23	..	..	..	..	..	Finger cut off.....	20
.. 22	L. Ettween.....	17	Central City.....	..	..	1	..	Ankle bruised.....	48
.. 23	Hy Jansen.....	34	Breese.....	1	..	1	..	Head and shoulders bruised.....	10
.. 23	Nelson Johnson.....	17	Centralia.....	..	..	1	..	Hand bruised.....	14
.. 24	Thad Simpson.....	27	Breese.....	1	..	..	..	Hips bruised.....	20
.. 25	Jas. Marckley.....	40	Odin.....	1	..	..	1	Leg broken.....	90
.. 28	Greely Estes.....	20	..	1	..	..	1	Back and hips injured.....	14
Oct. 7	Geo. Gilley.....	24	Centralia.....	1	..	1	..	Leg injured.....	12
.. 11	Wm. Ahlis.....	36	Lenzburg.....	1	..	4	5	..	20
.. 11	R. F. Cates.....	29	Odin.....	1	..	..	1	Leg broken.....	90
.. 14	Alex White.....	35	Bellville.....	..	..	1	..	Back and hips bruised.....	60
.. 19	Adolph Rail.....	21	Mascoutah.....	..	..	1	..	Arm fractured.....	100
.. 21	Aug. Heinman.....	33	Swansea.....	1	..	1	2	Hips bruised.....	20
.. 22	Hy Heidlebach.....	57	Belleville.....	1	..	1	2	Leg broken.....	100
.. 23	T. J. Victor.....	40	Centralia.....	..	..	1	..	Body injured.....	20
.. 26	Chas. Baker.....	28	..	..	..	1	..	Shoulders bruised.....	14
.. 28	C. R. Prickett.....	40	..	1	..	4	5	Foot bruised.....	12
.. 29	M. Burkner.....	25	Freeburg.....	1	..	1	..	Foot badly bruised.....	30
.. 30	Henry Forker.....	64	Breese.....	1	..	5	6	Foot broken.....	30

Non-Fatal Casualties—Sixth District—1898—Concluded.

Date.	Name.	Age.	Residence.	Married.	Single.	Children.	Dependent.	Character of Injury.	Time lost—days.
1897.									
Nov. 1	Richard Jacques.	23	Belleville.		1			Shoulder bruised.	20
2	Sam Adams.	40	Centralia.		1			Back bruised.	23
4	F. Brandhorst.	50		1				Finger bruised.	9
5	Hy Church.	23		1				Foot bruised.	31
22	Archie Merry.	40		1				Hand cut.	10
26	Jno. Laskero.	40	Collinsville.	1		4	5	Leg and ribs broken.	100
26	Frank Stedon.			1				Leg and side bruised.	10
29	Theo. Ravendorf.	19	Rentchler.		1			Leg fractured.	30
Dec. 3	Ben Kline.	49	Breese.	1		2	3	Wrist fractured.	50
7	Hy Marquin.	30	Centralia.	1				Hip bruised.	14
14	Alexander Smith.	36	Sandoval.	1		1	2	Knee injured.	14
22	Albert Rippy.	20	Odin.		1			Arm broken.	40
22	Chris Stoffels.	32	Freeburg.		1			Rib broken.	30
1898.									
Jan. 6	Wm. Westerges.	34	Centralia.	1			1	Body injured.	20
6	Geo. Sowman.	20	Glen Carbon.		1			Hips and back injured.	*
8	L. Belleville.	60	Belleville.	1		1	2	Body injured.	10
11	Con Schmidt.	34			1			Leg broken and double frac.	90
12	Wm. Bell, Sr.	56	Glen Carbon.	1				Leg broken and triple frac.	100
18	Chas. Dunbach.	43	Staunton.		1			Hip injured.	20
20	Chas. Langestein.	34	Belleville.		1			Thumb mashed.	15
24	Wm. Dornbach.	48		1				Leg bruised.	30
24	Rufus Frazer.	32	Trenton.		2		3	Leg broken.	60
25	Jno. Mooney.	50	Glen Carbon.	1		5	6	Body injured.	20
28	Law Finklein.	22	Belleville.		1			Leg and body injured.	21
Feb. 12	Douglass Brock.	22	Centralia.		1			Body injured.	10
21	Aug. Ziegler.	42		1		3	4	Foot broken.	30
Mar. 8	John Simpson.	50	Odin.		1	5	6	Leg broken.	*
10	Ed Perry.	40		1				Not stated.	
10	John Scherer.	22	Centralia.		1			Body injured.	13
16	Wm. Jordan.		Odin.	1		1	2	Arm broken.	60
17	James Bailey.	58	Reeb Sta.	1		9	10	Leg and hand bruised.	10
21	Philip Wright.	25	Central City.	1		2	3	Hand cut.	9
28	F. Drinkpohl.	30		1				Finger bruised.	18
Apr. 2	A. Kaling.	26	Breese.		1			Leg broken.	19
14	A. Oltman.	54	Germant'wn.	1		1	2	Head, neck and arms bruised.	30
14	Ben Englemeir.	38		1		4	5		30
May 4	Arch Feall.	22	Odin.		1			Head and back injured.	30
4	Chas. Lewis.	21			1			Body injured.	45
6	Geo. Foster.	46	Staunton.	1			1	Leg broken.	90
13	Hy Wehlage.	19	Breese.		1			Body injured.	7
24	Hy Foecke.	64		1		5	6	Back bruised.	20
28	Jno. Brisne.	35	Staunton.	1		1	2	Head bruised.	8
June 8	Wm. Watson.	40	Odin.		1		1	Rib broken and foot injured.	90
14	And. McClelland.	28		1				Head injured.	10
15	Jno. Helman.	20	Trenton.		1			Back and hips.	
21	Harry Love.	22	Odin.		1			Leg bruised.	
22	Wm. Curtis.	28		1			1	Arm broken.	
28	P. Martinallie.	24	Staunton.		1			Ankle.	
28	Wm. B. Green.	25	Marissa.	1		2	3	Body h.	
	Louie Joliff.	34	Kimmundy.	1		3	4		
	Totals.			44	31	77	115		

* Not recovered.

Total men injured.....
 Not reported July 1, 1898.....
 Not reported.....
 Number recovered.....
 Total time lost by men recovered.....
 Average time lost per man recovered.....

Recapitulation of Non-Fatal Casualties—Sixth District—1898.

Residence.	No.	Occupation.	No.	Nature of Casualty	No.	Colliery.	No.
Belleville.....	9	Blasters.....	2	Cable.....	1	Breese Coal Co.....	5
Breese.....	8	Cagers.....	2	Cages.....	2	Centralia Coal Co.....	8
Central City.....	3	Drivers.....	23	Drill.....	1	Consolidated Coal Co.....	8
Centralia.....	16	Foreman, asst.....	1	Falling coal.....	12	Donk Bros.....	1
Collinsville.....	2	Laborers.....	6	Falling coal, car.....	2	Dutch Hollow C. Co.....	1
Freeburg.....	3	Loaders.....	10	Falling coal, hands.....	2	Freeburg Mfg. Co.....	1
Germantown.....	2	Machinist.....	1	Falling coal, shaft.....	1	Highland Coal Co.....	2
Glen Carbon.....	3	Mach. runn'rs.....	2	Falling from chute.....	1	Hippard Coal Co.....	1
Kinmundy.....	1	Miners.....	27	Falling f'm pit cars.....	3	Kinmundy Coal Co.....	1
Lenzburg.....	1	Roadman.....	1	Falling prop.....	1	Kolb Coal Co.....	1
Marissa.....	1			Falling roof.....	18	Krantz, Jacob.....	1
Mascoutah.....	1			Flying coal.....	3	Lumaghi Coal Co.....	2
Odin.....	14			Kicked by mules.....	2	Madison Coal Co.....	3
Reeb Station.....	1			Machine.....	1	Missouri & Ill. C. Co.....	2
Rentehler.....	1			Pit cars.....	23	Moser, J. (Turkey H.).....	1
Sandoval.....	1			Not stated.....	2	Mt. O. & Staunt'n C. Co.....	4
Staunton.....	4					Murren C. & Iron Co.....	1
Swansea.....	1					Odin Coal Co.....	14
Trenton.....	3					Oak Hill Coal Co.....	2
						Pettinger & D. Mfg. Co.....	11
						Sandoval Coal Co.....	1
						Summit Coal Co.....	2
						Tirre & Son Coal Co.....	1
						West End Coal Co.....	1
Totals.....	75		75		75		75

Table showing the Nature of Injuries, Number of Persons Injured, Dependents, Time Lost, with Averages and Percentages—Sixth District.

NATURE OF INJURIES.	Number.	Married.	Single.	Dependents.	TIME LOST.		Per cent of injuries.
					Total days.	Average days.	
Ankle broken.....	1			1	100	100	1.35
Ankle injured.....	1			1	48	48	1.35
Arms broken.....	4	2	2	3	290	72.5	5.41
Arms injured.....	1	1		1	14	14	1.35
Backs injured.....	2	1	1	6	43	21.5	2.7
Backs and hips injured.....	4	1	3	2	134	33.5	5.41
Bodies injured.....	10	5	5	16	187	18.7	13.51
Collar bone broken.....	1			1	30	30	1.35
Feet injured.....	6	5	1	23	163	27.2	8.11
Finger cut off.....	1			1	20	20	1.35
Fingers injured.....	4	3	1	5	52	13	5.41
Hands injured.....	3	2	1	3	33	11	4.06
Heads and shoulders injured.....	8	5	3	12	202	25.3	10.81
Hips injured.....	5	3	2	3	74	14.8	6.76
Knee injured.....	1	1		2	14	14	1.35
Legs broken.....	10	8	2	19	810	81	13.51
Legs injured.....	8	4	4	16	143	17.9	10.81
Ribs broken.....	2	1	1	1	120	60	2.7
Shoulders injured.....	1			1	20	20	1.35
Wrist fractured.....	1	1		3	50	50	1.35
Not stated.....	1						
Totals, averages and percentages.....	75	44	31	115	2,547	35.4	100.00

Bond County—Sixth District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.							OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades	
1	Sorento Pros. & M.Co.	Sorento.....	380	7.6	6	Sh.	S.	M.	82,841	62,131	20,710	
2	Joseph Somers.....	Smithboro....	490	4	6	..	..	B.	13,473	11,673	1,800
	Totals.....								96,314	73,804	22,510	
	Averages.....											

Whole number of openings reported in 1897, 2.

Whole number of openings reported for 1898, 2.

Clinton County—Sixth District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.							OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades	
1	Consolidated Coal Co.	Trenton	333	4.10	7	Sh	S.	M.	92,754	72,834	19,920	
2	Trenton C. L. & P.Co.	.....	335	4.10	7	..	..	..	39,735	29,823	9,912
3	Breese Coal Co.	Breese	400	7.6	6			B.	222,765	199,114	23,651	
4	Consolidated Coal Co.	.....	400	8	5				62,330	45,052	17,278
Totals.....			.....	.....	..				417,584	346,823	70,761
Averages .....			.....	.....	..				.....	.....	.....

Whole number of openings reported in 1897, 4.

Whole number of openings reported for 1898, 4.

Bond County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.				WAGES.		Paid monthly, semi-monthly or weekly.	Days of active operation.	Kegs of powder used.		ACCI- DEN'S		Capacity of mine— tons.
	Av. value of lump per ton at the mine.	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.				Fatal.	Non-fatal.			
							For hand- mining.	For machine- mining.							
1	\$0 67	\$45,769	100	34	16	150	.....	\$0 33	S.M.	176	850	1	.....	150,000
2	90	11,405	14	4	4	22	\$0 43	.....	.....	200	600	1	.....	15,000
	.....	\$57,174	114	38	20	172	.....	.....	.....	.....	1,450	1	.....	165,000
	\$0 70.6	.....	.....	.....	.....	.....	\$0 43	*\$0 33	.....	188	.....	.....	.....	.....

* Price paid until April, 30 cents per ton.

Clinton County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.				WAGES.			Days of active operation	Kegs of powder used.		ACCI- DEN'S		Capacity of mine- tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employes un- der ground.	All employes above ground.	Total employes.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly.		Fatal.	Non-fatal.			
							For hand- mining.	For machine- mining.							
1	\$1 15	\$91,727	72	31	29	132	.....	\$0 38	S.M.	161	634	.....	3	200,000
2	90	28,823	60	11	14	85	.....	38	.....	150	400	.....	.....	65,000
3	65	140,066	150	25	15	190	\$0 40	.....	.....	290	5,288	.....	5	200,000
4	75	38,107	43	11	6	60	40	.....	.....	152	1,116	.....	5	180,000
.....		\$298,723	325	78	64	467	.....	.....	.....	.....	7,438	.....	13	645,000
	\$0 79	.....	.....	.....	.....	.....	\$0 40	\$0 38	.....	188	.....	.....	.....	.....

Madison County—Sixth District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades.
1	C. C. Co., Abby No. 3.	Collinsville...	146	7	6	Sh.	St.	M.	92,379	70,838	21,541
2	Heinz Bluff	.....	168	7	6	..	..	..	66,327	48,822	17,505
3	Brookside..	Troy	278	6	7	..	..	B.	13,148	9,771	3,377
4	Troy.....	.....	278	6	7	..	..	M.	17,410	13,029	4,381
5	No. 12.....	Worden.....	275	7	6	..	..	B.	10,272	8,560	1,712
6	McDonald..	.....	300	7	6	..	..	..	1,326	1,106	220
7	Madison C. Co., No. 2	Glen Carbon..	110	6.6	6	..	..	M.	130,284	98,715	31,569
8	.. No. 3	Edwardsville.	217	6.6	6	..	..	..	28,908	21,566	7,342
9	.. No. 4	Glen Carbon..	130	6.6	6	..	..	..	86,216	64,916	21,300
10	Lumaghi Coal Co....	Collinsville...	160	7	6	..	..	B.	86,149	57,433	28,716
11	Wonderly Coal Co*...	Edwardsville.	150	6	6	..	..	..	3,628	3,128	500
12	John James	Bethalto.....	67	5.6	6	..	Ho.	M.	1,200	1,200	.....
13	Malloy & Ball	North Alton..	100	2.6	1	..	..	..	1,000	1,000	.....
14	W. R. Richardson ...	Moro.....	48	5	6	..	..	..	300	300	.....
15	Lathy Yeager .....	..	50	5	6	..	..	..	450	450	.....
16	Samuel McDonald...	..	45	6	6	..	..	..	700	700	.....
17	Nathan Sydal	North Alton..	80	2.6	1	..	..	..	1,320	1,320	.....
18	Mt. O. & S. Coal Co.	Staunton.....	292	7	6	..	St.	B.	86,852	74,128	12,724
19	John McInally.....	North Alton..	30	2.6	1	..	Ho.	M.	400	400	.....
20	B. Elgin.....	..	56	3	1	..	..	..	800	800	.....
21	Gus Kanter.....	East Alton....	35	3	1	..	..	..	300	300	.....
22	Charles Kabel.....	Moro.....	85	4.6	6	..	..	..	1,000	1,000	.....
23	John Spencer.....	Bethalto.....	65	4	6	..	..	..	400	400	.....
Totals.....			.....	.....	.....	.....	.....	.....	630,769	479,882	150,887
Averages .....			.....	.....	.....	.....	.....	.....	.....	.....	.....

* Abandoned November, 1897.

† This mine was owned and operated by Henry Voge during the first half of the year.
Whole number of openings reported in 1897, 26.

Number of mines exhausted or abandoned during the year, 3.

Whole number of openings reported for 1898, 23.

Madison County, 1898—Concluded.

Number.	VALUES.		EMPLOYEES.				WAGES.			Days of active operation.	ACCI- DEN'TS		Capacity of mine— tons.	
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly		Kegs of powder used.	Fatal.		Non-fatal.
							For hand- mining.	For machine- mining.						
1	\$0 85	\$66,674	90	26	20	136		\$0 33	S.-M.	127	517			200,000
2	85	46,750	62	19	15	96		33		123	429			150,000
3	1 15	12,587	39	13	8	60	\$0 40			54	164			90,000
4	1 15	16,735	31	16	11	58		33		67	143			90,000
5	80	7,276	30	3	3	36		40		78	195			60,000
6	80	939	2	1	1	4		40		120	11			15,000
7	60	70,278	174	26	16	216		33		114	876	1		360,000
8	1 00	25,971	30	9	6	45		33		192	329			200,000
9	60	46,404	75	20	10	105		33		121	715	2		300,000
10	75	55,125	80	10	7	97		40		300	2,400	2		150,000
11	1 00	3,378	25	3	3	31		50		80	130			
12	1 25	1,500	3		1	4		75	W.	200				2,000
13	1 50	1,500	4		1	5	1 00			200				2,000
14	1 25	375	1		1	2		75		100	3			1,000
15	1 15	562	3		2	5		75		200				600
16	1 25	875	2		1	3		75		150				1,000
17	1 50	1,980	6		1	7	1 00			200				1,500
18	87	64,359	80	8	9	97		40	S.-M.	240	2,170	4		200,000
19	1 50	600	3		1	4	1 00		W.	100				500
20	1 50	1,200	3		1	4	1 00			200				1,000
21	1 50	450	2		1	3		75		150				500
22	1 50	1,500	4		1	5		75		160				1,500
23	1 25	500	2		1	3		75		150				800
.....		\$427,518	751	154	121	1,026					8,082		9	1,827,400
	\$0 77.9						\$0 41.3	\$0 33		145				

Marion County—Sixth District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades
1	Centralia M. & M. Co.	Centralia.	576	7	6	Sh.	S.	B.	182,352	141,151	41,201
2	Pittenger & Davis	"	637	6	6	"	"	"	176,758	123,618	53,140
3	Odin Coal Co.	Odin.	714	7	6	"	"	M.	169,554	139,530	30,024
4	Sandoval Coal Co.	Sandoval.	609	6	6	"	"	B.	152,249	91,350	60,899
5	Kimmundy Coal Co.	Kimmundy.	871	4	"	"	"	M.	23,100	16,000	7,100
6	Salem Coal Co.	Salem.	885	4	"	"	"	"	10,500	10,000	500
Totals									714,513	521,649	192,864
Averages											

Whole number of openings reported in 1897. 6.

Whole number of openings reported for 1898. 6.

St. Clair County—Sixth District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades
1	Con. C. Co., Richland.	Belleville.	90	8	6	Sh.	S.	M.	8,481	7,204	1,277
2	Con. C. Co., Schureman	"	125	6	6	"	"	"	41,372	32,172	9,200
3	Con. C. Co., Gr'ts'e No. 4	"	205	6	6	"	"	"	38,541	32,378	6,163
4	Con. C. Co., Gr'n Mo'nt	"	160	6	6	"	"	"	47,368	37,813	9,555
5	Con. C. Co., Pittsburg	"	125	6.6	6	"	"	B.	14,061	12,557	1,504
6	Con. C. Co., Rose Hill	"	132	6	6	"	"	M.	26,145	22,164	3,981
7	Con. C. Co., Marissa.	Marissa.	120	6	6	"	"	B.	32,243	25,618	6,625
8	Con. C. Co., White Oak	"	147	6	6	"	"	"	30,850	25,166	5,684
9	Con. C. Co., Alma	Collinsville.	210	6.6	6	"	"	"	11,293	9,551	1,742
10	Con. C. Co., Mentor	"	210	7	6	"	"	"	11,138	9,360	1,778
11	Con. C. Co., Abbey No. 4	"	140	6.6	6	"	"	"	19,104	14,142	4,962
12	Oakland Coal Co.	Belleville.	175	6.6	6	"	"	M.	51,367	39,867	11,500
13	Crown C. & T. Co., No. 2	"	185	7	6	"	"	B.	10,500	10,500	
14	Crown C. & T. Co., No. 4	"	125	7	6	"	"	"	38,500	38,500	
15	Con. C. Co., Reinecke No. 2	"	110	6	6	"	"	"	60,844	53,239	7,605
16	Highland Coal Co.	"	130	6.6	6	"	"	"	33,742	32,842	900
17	Massie Coal Co., No. 1	"	120	6.6	6	"	"	"	33,018	27,312	5,706
18	Massie Coal Co., No. 2	"	90	6	6	"	"	"	28,500	24,000	2,500
19	Glendale Coal Co.	"	120	6.6	6	"	"	M.	74,058	60,841	13,217
20	West End Coal Co.	"	115	7	6	"	"	"	18,300	12,800	6,000
21	Oak Hill Coal Co.	"	187	6	6	"	"	"	34,555	27,746	6,809
22	Skellert Coal Co.	"	160	6.6	6	"	"	"	36,892	21,169	15,723
23	Hippard Coal Co.	"	75	7	6	"	"	"	56,400	43,400	13,000
24	Donk Bros.	"	"	6	6	Sl.	"	"	31,518	25,518	6,000
25	Humboldt Coal Co.	"	100	6.6	6	Sh.	"	"	22,850	22,850	
26	Johnson Coal & M. Co.	"	75	6	6	"	"	"	26,000	26,000	

Marion County, 1898—Concluded.

Number.	VALUES.		EMPLOYEES.				WAGES.			Days of active operation.	Kegs of powder used.		ACCI- DENTS		Capacity of mine— tons.
	Av. value of lump per ton at the mine.	Aggregate value of total product.	No. of miners em- ployed.	Other employes un- der ground.	All employes above ground.	Total employes.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly.						
							For hand- mining.	For machine- mining.							
											Fatal.	Non-fatal.			
1	\$0 75	\$116,163	150	20	39	209	*	.....	M.	225	5,857	1	8	200,000
2	75	105,998	140	30	37	207	*	.....	"	213	6,390	..	11	200,000
3	80	118,229	110	40	22	172	†	.....	S.M.	313	4,187	2	14	200,000
4	75	78,646	100	35	18	153	*	.....	"	150	4,647	1	1	200,000
5	90	17,240	35	10	15	60	\$0 41	.....	"	200	960	..	1	90,000
6	1 60	10,250	15	4	8	27	†	.....	"	200	150	..	....	20,000
7	.....	\$446,526	550	139	139	828	.....	.....	.....	.....	22,191	4	35	910,000
8	\$0 77.2	.....	.....	.....	.....	.....	.....	.....	.....	217	.....	.....	.....	.....

* More than four-fifths of the work was done by day work; shooters, \$2.50 per day, load-
ers, 15 cents per box.

† Odin Coal Co. pays machine men \$2.00 per day, shooters the same, loaders 10 cents per
ton.

‡ 50 cents for screened coal and 35 cents for gross-weight coal.

St. Clair County, 1898—Continued.

Number.	VALUES.		EMPLOYEES.				WAGES.			Days of active operation.	Kegs of powder used.		ACCI- DENTS		Capacity of mine— tons.
	Av. value of lump per ton at the mine.	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly.		Fatal.	Non-fatal.			
							For hand- mining.	For machine- mining.							
1	\$0 70	\$5,298	20	3	2	25	.....	\$0 33	S-M.	92	136	.....	.....	60,000
2	75	26,429	41	7	7	55	.....	33	"	165	209	.....	.....	100,000
3	75	25,824	40	4	9	56	.....	33	"	153	238	.....	.....	90,000
4	75	30,748	48	6	6	62	.....	33	"	163	323	.....	.....	120,000
5	75	9,793	18	3	2	23	\$0 40	.....	"	104	300	.....	.....	60,000
6	75	17,618	26	3	4	33	.....	33	"	162	127	.....	.....	60,000
7	75	20,869	19	5	4	27	40	.....	"	188	744	.....	.....	60,000
8	75	20,011	18	6	7	31	.....	* 33	"	122	920	.....	.....	100,000
9	70	7,030	26	6	4	36	40	.....	"	63	229	.....	.....	100,000
10	70	6,907	21	4	5	30	40	.....	"	70	226	.....	.....	120,000
11	75	11,847	34	9	5	48	40	.....	"	62	319	.....	.....	100,000
12	65	30,513	20	3	5	28	.....	33	"	236	240	.....	.....	50,000
13	65	6,825	45	3	3	51	40	.....	"	60	300	.....	.....	50,000
14	65	25,025	70	8	6	84	40	.....	"	140	700	.....	.....	75,000
15	65	36,126	65	10	7	82	40	.....	"	185	1,483	.....	.....	90,000
16	77.5	25,551	37	3	3	43	40	.....	"	200	706	.....	2	50,000
17	70	21,001	36	3	4	43	40	.....	"	170	815	.....	.....	65,000
18	63	17,320	25	2	2	29	40	.....	"	200	190	.....	.....	40,000
19	66	42,137	65	16	10	91	.....	33	"	172	625	.....	.....	150,000
20	85	12,980	15	2	2	19	40	.....	"	250	324	.....	1	25,000
21	75	23,022	27	2	3	32	40	.....	"	186	803	.....	2	60,000
22	65	19,262	40	3	4	47	40	.....	"	192	854	.....	.....	75,000
23	60	31,246	60	6	12	78	40	.....	"	211	1,866	.....	1	85,000
24	75	20,638	60	7	9	76	40	.....	"	171	591	.....	1	100,000
25	67.5	15,423	20	2	2	24	40	.....	"	273	570	.....	.....	35,000
26	60	15,600	20	2	2	25	40	.....	"	200	800	.....	.....	45,000

* Drilling machines, not cutting machines, used here.

St. Clair County, 1898—Continued.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.							OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades.	
27	Mo. & Ill. Coal Co.....	Belleville.....	90	6	6	Sh.	S.	B.	35,341	24,739	10,602	
28	Mo. & Ill. Coal Co.....	..	120	6	6	..	..	..	34,081	25,360	8,521
29	Mo. & Ill. Coal Co.....	..	130	6	6	..	..	..	39,761	29,821	9,940
30	Leb. Coal & M. Assn..	Lebanon.....	200	6	7	..	..	..	37,449	30,524	6,925
31	J. Moser (Turkey Hill)	Rentchler.....	110	7	6	..	..	..	13,700	12,820	880
32	Wm. Ogden & Bro....	..	120	7	6	..	..	..	12,500	9,500	3,000
33	Freeburg Mining Co..	Freeburg.....	130	7	6	..	..	..	32,000	30,000	2,000
34	Dutch Hollow C. Co..	..	150	8	6	..	..	..	29,045	23,689	5,356
35	J. Krantz.....	Belleville.....	55	6	6	..	..	..	9,754	9,754	..
36	Ebel Bros.....	..	50	6	6	..	..	..	6,000	6,000	..
37	Johnson Coal Co.....	Marissa.....	120	6	6	..	..	..	37,682	30,146	7,536
38	Advance Coal Co.....	..	87	6	6	..	..	..	18,285	16,000	2,285
39	Eureka Coal Co.....	..	114	6	6	..	..	..	2,200	2,200	..
40	O'Fallon C. & M. Co..	O'Fallon.....	200	6	7	..	..	..	64,325	38,600	25,725
41	Joseph Taylor.....	..	200	6	7	..	..	..	60,965	53,224	7,741
42	Ratic'n, J'yce & Grieve	Caseyville.....	200	6	7	..	..	..	40,000	25,000	15,000
43	Walnut Hill Coal Co..	Birkner.....	200	6	6	..	..	..	28,695	22,956	5,739
44	Tirre & Sons Coal Co..	Lenzburg.....	191	6.6	6	..	..	..	40,236	30,636	9,600
45	Summit Coal Co.....	Birkner.....	190	7	6	..	..	..	29,387	23,887	5,500
46	Kolb Coal Co.....	Mascoutah.....	160	7	6	..	..	..	74,500	55,200	19,300
47	James Beatty.....	..	175	8	6	..	..	..	3,704	3,204	500
48	Millstadt Coal Co....	Millstadt.....	48	6	6	..	..	..	16,859	14,662	2,197
49	William Pistor.....	..	46	6	6	..	Ho.	..	2,630	2,630	..	
50	Dutch Hill Coal Co..	New Athens.....	70	6.6	6	..	S.	..	10,000	8,000	2,000	
51	Muren Coal & Ice Co..	Belleville.....	180	6	6	..	..	..	53,200	35,467	17,733
52	John Harst.....	..	55	7	6	..	Ho.	..	4,380	4,380	..	
53	Nicholas Weiss.....	..	66	6.6	6	..	..	..	2,000	2,000	..
54	Klingenfus Bros.....	..	70	6	6	..	S.	..	1,350	1,350	..	
55	Sliment & Son.....	Centreville.....	60	6	6	D.	M.	..	1,000	1,000	..	
56	James Charleton.....	French Vill'ge	50	6	6	Sl.	S.	..	1,250	1,250	..	
57	Conrad Strawbinger..	..	50	6	6	D.	M.	..	4,000	4,000	..	
58	Conrad Reeb.....	Belleville.....	100	7	6	Sh.	..	..	4,333	4,333	..
59	Louis Grossman.....	..	20	6	6	Sl.	..	..	1,500	1,500	..
60	Frederick Murphy....	..	60	6	6	Sh.	..	..	4,000	4,000	..
61	Benjamin Johnson....	..	30	6.6	6	..	..	..	3,000	3,000	..
62	Diedrich Coal Co.....	Freeburg.....	60	7.6	6	..	..	..	1,500	1,500	..
63	Taylor Bros.....	Belleville.....	35	6	6	..	..	..	4,000	4,000	..
Totals.....									1,600,752	1,291,241	309,511	
Averages.....												

Whole number of openings reported in 1897, 63.

Number of new mines or places opened during the year, 1.

Number of mines exhausted or abandoned during the year, 1.

Whole number of openings reported for 1898, 63.

St. Clair County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.				WAGES.				Days of active operation.	Kegs of powder used.	ACCI- DEN'S		Capacity of mine— tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly	Fatal.			Non-fatal.		
							For hand- mining.	For machine- mining.							
27	\$0 65	\$20,320	42	2	6	50	.....	\$0 33	S-M.	128	1,176	.....	2	.....	110,000
28	65	20,022	35	8	4	47	\$0 40	.....	.....	126	750	.....	.....	.....	100,000
29	65	23,359	42	7	7	53	40	.....	.....	130	977	.....	.....	.....	100,000
30	90	30,933	55	7	8	70	.....	33	.....	125	325	2	.....	.....	90,000
31	60	7,912	25	2	3	30	40	.....	.....	257	475	1	1	.....	45,000
32	75	7,875	15	3	2	20	40	.....	.....	150	300	.....	.....	.....	30,000
33	75	23,100	18	3	3	24	40	.....	.....	240	710	.....	1	.....	40,000
34	70	17,921	17	4	3	24	40	.....	.....	200	850	.....	1	.....	75,000
35	70	7,315	4	1	2	7	40	.....	.....	210	26	.....	1	.....	20,000
36	1 00	6,000	5	2	1	8	40	.....	.....	300	250	.....	.....	.....	10,000
37	70	23,362	35	4	4	43	40	.....	.....	200	1,076	.....	.....	.....	60,000
38	80	13,942	20	4	3	27	40	.....	M.	200	482	.....	.....	.....	30,000
39	75	1,650	5	1	2	8	40	.....	.....	80	90	.....	.....	.....	20,000
40	75	35,381	58	5	6	69	40	.....	S-M.	195	1,214	.....	.....	.....	140,000
41	75	43,014	80	8	6	94	40	.....	.....	192	1,577	.....	.....	.....	160,000
42	75	22,500	40	6	4	50	40	.....	.....	160	1,500	.....	.....	.....	90,000
43	75	18,938	40	3	4	47	40	.....	.....	160	750	.....	.....	.....	90,000
44	65	23,753	27	4	4	35	40	.....	.....	230	1,050	.....	1	.....	80,000
45	65	17,176	24	3	3	30	40	.....	.....	247	647	.....	2	.....	50,000
46	65	41,670	68	6	9	83	40	.....	.....	240	220	.....	1	.....	150,000
47	1 12 5	3,729	3	2	2	7	40	.....	W.	200	112	.....	.....	.....	9,000
48	75	12,094	24	2	2	28	40	.....	S-M.	185	400	.....	.....	.....	30,000
49	1 00	2,630	4	.....	1	5	50	.....	.....	222	90	.....	.....	.....	4,000
50	75	6,700	4	1	1	6	40	.....	.....	300	300	.....	.....	.....	15,000
51	65	30,146	60	6	5	71	40	.....	.....	275	1,800	.....	1	.....	180,000
52	1 00	4,380	5	.....	1	6	40	.....	.....	315	120	.....	.....	.....	8,000
53	1 00	2,000	3	.....	1	4	40	.....	.....	300	26	.....	.....	.....	3,000
54	1 00	1,350	4	1	1	6	40	.....	W.	250	125	.....	.....	.....	2,000
55	1 00	1,000	2	.....	.....	2	50	.....	S-M.	100	5	.....	.....	.....	3,000
56	1 00	1,250	3	1	1	5	50	.....	.....	150	42	.....	.....	.....	3,000
57	1 00	4,000	3	.....	1	4	50	.....	.....	250	100	.....	.....	.....	4,500
58	1 00	4,333	5	1	1	7	40	.....	.....	303	48	.....	.....	.....	5,000
59	1 00	1,500	2	.....	.....	2	40	.....	W.	300	50	.....	.....	.....	5,000
60	1 00	4,000	4	1	1	6	40	.....	.....	300	100	.....	.....	.....	5,000
61	1 00	3,000	2	1	.....	4	40	.....	.....	300	75	.....	.....	.....	4,000
62	1 00	1,500	2	1	.....	3	40	.....	.....	250	40	.....	.....	.....	2,000
63	1 00	4,000	4	1	1	6	40	.....	.....	160	100	.....	.....	.....	6,000
.....	.....	\$1,018,792	1,705	233	231	2,169	.....	.....	.....	.....	32,596	3	18	.....	3,633,500
.....	\$0 71.3	.....	.....	.....	.....	.....	\$0 40	\$0 33	.....	192	.....	.....	.....	.....	.....

* Drilling machines only used in this mine.

† Abandoned April, 1898.

Recapitulation by Counties—

COUNTY.	MINES.				PRODUCTS.					VALUES.	
	Number of mines.	Shipping mines.	Mines in local trade.	Abandoned mines.	Total tons produced.	Tons of lump coal.	Tons of other grades.	Tons shipped.	Estimated capacity (in tons) of existing mines.	Average value per ton of lump at the mine.	Aggregate value of total product.
Bond.....	2	2	...	...	96,314	73,804	22,510	87,488	165,000	\$0 70.6	57,174
Clinton	4	4	...	...	417,584	346,823	70,761	380,043	645,000	79	298,723
Madison	23	11	12	...	630,769	479,882	150,887	519,722	1,827,400	77.9	427,518
Marion	6	6	...	...	714,513	521,649	192,864	676,840	910,000	77.2	446,526
St. Clair.....	63	49	14	1	1,600,752	1,291,241	309,511	1,357,428	3,633,500	71.3	1,018,792
Totals.....	98	72	26	1	3,459,932	2,713,399	746,533	3,021,521	7,180,900	.....	\$2,248,733
Averages. ....	...	...	...	...	.....	.....	.....	.....	.....	\$0 74.6	.....

Whole number of openings reported in 1897, 101.

Number of new mines or places opened during the year, 1.

Number of mines exhausted or abandoned during the year, 4.

Whole number of openings reported for 1898, 98.

Sixth District—1898.

EMPLOYEES.			Average number of days of active operation.	Number of kegs of powder used.	CASUALTIES.				WAGES.		MACHINES.		
Number of miners.	Number of other employes.	Total employes.			Killed.	Injured.	Widows.	Children.	Average price paid per gross ton.		Number of mines using machines.	Number of machines in use.	Total tons cut by machines.
									For hand mining.	For machine mining.			
114	58	172	188	1,450	1	....	1	2	\$0 43	\$0 33	1	7	82,841
325	142	467	188	7,438	....	13	....	....	40	38	2	17	122,754
751	275	1,026	145	8,082	....	9	....	....	41.3	33	6	58	421,524
550	278	828	217	22,191	4	35	4	7	*	.....	1	5	107,500
1,705	464	2,169	192	32,596	3	18	2	11	40	33	8	36	324,781
3,445	1,217	4,662	.....	71,757	8	75	7	20	.....	.....	18	123	1,059,400
.....	.....	.....	182	.....	.....	.....	.....	.....	\$0 40.4	\$0 33.6	.....	.....	.....

* Wages paid by the day.

SEVENTH INSPECTION DISTRICT—1898.

Counties: Gallatin, Hamilton, Jackson, Jefferson, Johnson, Perry, Randolph, Saline, Washington, Williamson.

EVAN D. JOHN, *Inspector*, Carbondale.

HON. DAVID ROSS, *Secretary*,

State Bureau of Labor Statistics, Springfield, Illinois.

SIR:—In compliance with section 12 of the general mining law of the State of Illinois, I have the honor to submit to you the annual report of the Seventh Inspection District for the year ending June 30, 1898, the same being the third annual report of the Seventh district as now defined, and the fifteenth of the general series.

The district shows an increase in output over that of 1897 of 821,798 tons. The largest increase is in Williamson county, and is 245,628 tons. Jackson county comes next with an increase of 235,982 tons. Perry county shows an increase of 155,408 tons. Randolph county has an increase of 123,425 tons. Saline county has an increase of 48,316 tons. Washington county has an increase of 18,093 tons, and Hamilton county has an increase of 4,122 tons. Gallatin, Jefferson and Johnson counties show a total decrease of 9,186 tons.

The following is a summary of the statistics of the year for the Seventh district:

Number of counties in which coal is produced.....	10
Total number of mines.....	123
Shipping mines.....	59
Local mines.....	64
New mines.....	7
Abandoned mines.....	8
Mines using machines.....	10
Total tonnage.....	3,159,300
Tons of lump coal.....	2,211,403
Tons of other grades.....	947,897
Aggregate value of total product.....	\$2,262,426
Average value of lump coal per ton at the mine.....	\$0.968
Number of miners.....	2,957
Number of other employes.....	1,308
Total number of employes.....	4,265
Average number of days of operation for all mines.....	134
Number of kegs of powder used.....	69,671
Number of fatal accidents.....	17
Number of non-fatal accidents.....	48
Number of widows.....	9
Number of orphans.....	23
Number of coal cutting machines used.....	53
Total tons of coal cut by machines.....	582,477
Number of tons of coal produced to each fatal accident.....	185,841
Number of tons of coal produced to each non-fatal accident.....	65,819
Number of persons employed to each fatal accident.....	251
Number of persons employed to each non-fatal accident.....	88

Prospective Mines.—A company of miners is sinking a shaft one mile east of Lauder Station, in Williamson county, on the Illinois Central Railroad.

A shaft is being sunk by D. N. Prichett in Williamson county, one mile south of Stonefort, on the Big Four Railroad, Cairo division.

New Mines.—Jackson county.—The Big Muddy Coal and Iron Company, at Murphysboro, has completed shaft No. 6 and has fitted it up in first-class shape, top and bottom.

Oliver Bailey has opened a new local mine three miles southeast of Carbon-dale.

Johnson county.—The New Burnside Coal Company has opened a slope one mile north of New Burnside on the Big-Four Railroad, close to the old Bald Knob mine, which was abandoned several years ago.

Williamson county.—The Ohio and Mississippi Valley Coal and Mining Company has completed its shaft No. 2, two miles north of Marion on the Chicago & Eastern Illinois Railroad, and has three electric chain machines at work.

William Jack has sunk a local shaft two and one-half miles north of Marion.

The local shaft at Blairsville has been reopened by W. H. Williams.

Abandoned Mines.—One local mine in Hamilton county; two local mines in Jackson county; one local mine in Saline county, and two local mines in Williamson county have been abandoned.

Escapement Shafts.—The Big Muddy Coal and Iron Company, No. 7, at Herrins, Williamson county, has completed its escapement and air shaft.

The Williamson county Coal Company has completed its escapement shaft.

The Crab Orchard Coal Company has completed its escapement shaft.

The Mt. Vernon Coal Company has also completed an escapement shaft which is 850 feet deep.

Fatal Accidents.—July 16, 1897, William Mercer, a driver at the Jupiter Mining Company's shaft, at DuQuoin, was found in an unconscious condition in the main entry at 8 a. m., and was conveyed to the surface where he died at 8:15 a. m. It is the custom in this mine for the room drivers to pull their coal out to a place about 800 feet from the bottom on the main entry, and from there out the entry driver pulls the coal to the bottom. William Mercer had charge of all the drivers and was a driver himself. Before leaving the bottom on the morning of his death, with his mule, he sent a boy to ascertain how many cars were lying at this particular point on the main entry. The boy reported 19 loaded pit cars. Mercer then went inside and commenced pulling out the coal, and had brought his trip out to the main entry where the 19 loaded cars were standing. When found he was lying between the rail of the track and the rib of the coal in front of his trip, which was within four feet of the standing cars. His mule was still coupled to his trip. The deceased was 32 years old and leaves a widow and two children. No marks were found on the body. However, at the coroner's inquest, the physician stated that on examination a clot of blood was found on the inside in the region of the bowels. The case is now pending in the courts on a suit for damages; two ^{is} have been had in the circuit court of Perry county, the jury failing to
at each trial.

July 17, 1897, William Killiam, a miner in the employ of the Illinois Central Coal and Salt Company at St. Johns, was injured at 9 a. m., from the effects of which he died at 11 a. m. This was to be his last day's work at the mine, as he had laid off the day before to secure employment at another mine. He had a standing shot in his room and was mining it off when a piece of slate 9 feet long, 3 feet wide and 8 inches thick fell on him. He knew the place was dangerous, but he wanted to have his place cleaned up and then put up some timbers. Deceased was 38 years old and leaves a widow and one child.

July 31, 1897, Julius Smith, a miner at the Willis Coal and Mining Company's mine at Willisville, was instantly killed by falling slate about 10 a. m., while at work at the face of his room. Deceased was 49 years old and leaves a widow and one child.

August 11, 1897, John Yates, aged 32, single, an engineer in the employment of the Big Muddy Coal and Coke Company at DeSoto, was injured by a boiler explosion at the air shaft at 6:30 a. m., from which injuries he died at 11:45 a. m. The night watchman had been on duty as usual, and had left about 5:30 a. m. He claims to have left everything in good order. John Yates had only been at work about 10 minutes when the explosion occurred which caused his death.

September 16, 1897, Fred Grenhold, a miner employed at the Williamson county Coal Company's mine, at Johnston City, was instantly killed by falling coal. He was mining off a standing shot, and being old he was unable to get out of the way of the falling coal. Deceased was 54 years of age and single.

September 24, 1897, at the mine of the Williamson County Coal Co., at Johnston City, a fire damp explosion occurred at 7 a. m., which proved fatal to Frank Fanaro, aged 45, and single; John Geneli, aged 38, single; Charles Schiller, aged 34, single, and Peter Casper, aged 37, single, also seriously injuring Robert Britton and Joseph Barlow. Barlow has not been able to work since the accident.

On the morning of September 24 the men gathered at the pit top, as usual, for work; the fire boss being sick, the mine had not been examined on this morning. Caleb Davis, the mine manager, claims to have told Peter Casper and others who were working in the first and second south entries on the east side, to remain at the bottom of the shaft till he could come down and examine their working places. Peter Casper, on reaching the bottom, went direct into the first south entry and left his naked light on the outside of the cross-cut and took off his coat and went to the face and started to brush out the fire damp with his coat. After working at this a few minutes he returned and got his naked light and then went and got an empty pit-car and pushed it toward the face. As soon as he was inside the cross cuts a few feet his naked light came in contact with the fire damp, which caused a terrific explosion and the death of the four miners mentioned. The stoppings, doors and timber of the first and second south entries were blown in all directions. Robert Britton and Joseph Barlow were blown several feet along the main east entry by the force of the explosion. Joseph Barlow had his leg broken and the flesh torn, and his head badly bruised. Robert Britton had his left arm broken. Caleb Davis, mine manager, was at the pit top at the time the

explosion occurred, and as soon as possible he secured some practical men and started them to work to restore ventilation by putting up temporary doors and stoppings. Peter Casper walked alone to the bottom of the shaft, though severely burnt, and was there met by his friends and conveyed to his boarding house, where he died on the 26th. Chas. Schiller was found in the second south entry by the searching party, trying to make his way to the bottom. At the time of the explosion he was at the mouth, which was 200 feet from the face of the entry, on his knees, taking off his top shirt. He managed to crawl several hundred feet along the entry. He was conveyed to his boarding house, where he died on the 25th. Frank Fanaro was found dead in his room in the first south entry, evidently overcome by after damp, and when found was lying face downward. It was then supposed that this was all that were injured by the explosion, and the searchers went to the top, but after a few minutes it became known that John Geneli was missing. The party then descended the shaft and searched for him. They found him dead in the third room from where he was working, toward the bottom. It was evident that he had tried to find his way out after the explosion, but had become bewildered and strayed into this room. Peter Casper said there was some one calling for help and light when he was on his way out. The last body was taken out at 11 a. m. The company was sinking an escapement at the time of the explosion, which has been completed since. I visited the mine on the afternoon of September 24, and discovered, upon examination of the record book, that the mine had not been examined in the morning before the men were allowed to go to work, nor had it been examined since the morning of September 20, the day on which I made my previous visit. This mine, at the date of this report, is operated by A. W. Crawford, lessee.

November 22, 1897, William Edwards, a miner employed in the mine of the Equality Coal Company, at Equality, received injuries from a premature blast about 8:30 a. m., from which he died November 28. His shot had missed fire the evening before and, there being no work at the mine on the 22d, he asked some of the miners to accompany him, so that he might show them how to drill out a miss-fired shot. He took a churn drill and churned out the tamping, and when he came to the powder it exploded and burned him so severely that he died from its effects. Deceased was 50 years old, and leaves a widow and three children.

December 8, 1897, Alexander Hooks, aged 38, married, leaves a widow and three children, by occupation a miner, was killed about 1:30 p. m., in the mine of the Jupiter Mining Company, of DuQuoin. He had tried to take down a piece of draw slate at the face, and on failing to take down the slate, he undertook to work off some coal which was directly under the slate which he had just tried to take down. After working at the coal for some time the slate fell on him and killed him instantly.

December 15, 1897, John Coyne, aged 44, single, by occupation a miner, was suffocated by gases from a coal fire in the third south entry on the east side of mine No. 2, of the Scott-Wilson Coal Company, at Fredonia. At 7:30 a. m., miners working on the east side reported to the mine manager that *there was smoke coming from some of the pillars between the second and*

third south entries. He immediately ordered all of the men out of the mine, except a few whom he kept to locate the fire. One of the mules got away from the driver and ran into the third south entry, and was allowed to go, as it was thought too dangerous to go after him on account of the smoke. About 9:30 a. m., John Coyne started in the direction the mule had taken and asked some of the men to follow him; none, however, went. The mine manager, on finding out what Coyne had done, sent two men in search of him, but they could not find him and returned. Another party was organized in the afternoon to go in search of Coyne, and they found him dead, about 6 p. m., in the third south entry, 1,200 feet from the main east entry, the mule being a little beyond the body of Coyne. When the men reached the switch with Coyne's body the mule was close to their heels and seemed to be unharmed. The fire originated among some old timbers where some one must have changed lamp cotton, which set fire to the coal. This part of the mine was then sealed up for three weeks and was then reopened, when it was found the fire had all died out.

December 31, 1897, Greely Jones, aged 25, single, by occupation a timberman, was killed by a fall of slate about 2 p. m., in the Willis Coal and Mining Company's mine, at Willisville. He had set up a prop under some loose slate, and, after setting it, it did not suit him and he took a sledge and started to straighten the prop by hitting it at the bottom. In doing this the prop swung and let down the loose slate, which killed him instantly.

March 11, 1898, John Stanhouse, aged 40, married, leaves a widow and two children, by occupation a miner, was killed at 9:30 p. m., in the mine of the Jupiter Mining Company, at DuQuoin. John Stanhouse was working in an entry pillar. He had a good deal of loose coal, and made the remark to his partner that as soon as they should get some of their coal loaded out they would put up some props to secure the roof. Before the coal was loaded out the slate gave way and John Stanhouse's head was caught between the bumper of the car and the slate and he was killed instantly. They were working on the night shift.

March 11, 1898, John Allison, aged 48, married, leaves a widow and one child, by occupation a miner, was found in an unconscious condition in the return air-way of Hugh Murray's mine at Sparta, at 6:30 p. m. He died while being carried out of the air-way. He was last seen about 9 a. m., by John Winterbottom, mine manager, who told him to go and get his tools from where he had been working and bring them to the bottom, and that he would give him another place to work. It was a great deal shorter distance for Allison to bring his tools to the bottom by the return air-way than to go around by the regular road. The sanitary condition of the air-way where Allison was found was good. The judgment of the coroner's jury was that his death was caused by heart disease.

May 5, 1898, Thomas Holman, aged 30, married, leaves a widow and two children, by occupation a miner, was injured by the explosion of a keg of powder about 2:30 p. m., in Brown & Barwell's mine, at Cutler, from which

injuries he died May 17. He had got a full keg of powder that morning and did not take time to unscrew the top of the keg, but drove his steel pick into the keg, which caused the powder to explode and his death.

June 15, 1898, John Jeffery, aged 54, married, leaves a widow and eight children, by occupation a miner, was killed by a fall of top coal at 1:45 p. m., at the Gartside Coal Company's mine No. 4, at Murphysboro. Jeffery and his brother were at work at a pillar. They had shot the bottom coal out for several feet and had fired a shot at noon that day which had loosened the top coal, and were working out the bottom coal at the time the accident occurred. Jeffery lived but a few minutes after getting out from under the fall of the top coal.

Respectfully submitted,

EVAN D. JOHN,

State Inspector of Mines, Seventh District.

CARBONDALE.

Fatal Casualties—Seventh District—1898.

Date.	Name.	Age.	Occupation.	Residence.	Married.	Widow.	Children.	Single.	Depend'ts	Cause of Accident.
1897.										
July 16	William Mercer	32	Driver	DuQuoin....	1	1	2	..	3	Unknown*.....
" 17	William Killiam.....	38	Miner.	St. Johns ..	1	1	1	..	2	Falling roof.....
" 31	Julius Smith	49	"	Willisville..	1	1	1	..	2	Falling roof.....
Aug. 11	John Yates	32	Engineer...	De So'o.....	..	..	..	1	..	Boiler explosion....
Sept. 16	Fred Grendhold	54	Miner.	Johns'n City	..	..	..	1	..	Falling coal.....
" 24	Frank Fanaro.....	45	" .....	" .....	..	..	..	1	..	Fire damp explosion.
" 24	John Geneli.....	38	" .....	" .....	..	..	..	1	..	Fire damp explosion.
" 24	Charles Schiller.....	34	" .....	" .....	..	..	..	1	..	Fire damp explosion.
" 24	Peter Casper	37	" .....	" .....	..	..	..	1	..	Fire damp explosion.
Nov. 22	William Edwards.....	50	"	Equality....	1	1	3	..	4	Premature blast....
Dec. 8	Alex Hooks.....	38	"	DuQuoin....	1	1	3	..	4	Falling roof.....
" 15	John Coyne.....	44	"	Fredonia....	..	..	..	1	..	Suffocation.....
" 31	Greely Jones	25	Timberman.	Willisville..	..	..	..	1	..	Falling roof.....
1898.										
Mar. 11	John Stanhouse.....	40	Miner.	DuQuoin....	1	1	2	..	3	Falling roof.....
" 11	John Allison.....	48	"	Sparta.....	1	1	1	..	2	Supposed heart dis..
May 5	Thomas Holman.....	30	"	Cutler.....	1	1	2	..	3	Explo. keg of powder
June 15	John Jeffery.....	54	"	Murp'ysb'ro	1	1	8	..	9	Falling coal.....
	Totals.....				9	9	23	8	32	

Total fatal casualties, 17.

* Case now in the courts and undecided.

Recapitulation of Fatal Casualties—Seventh District—1898.

Residence.	No.	Occupation.	No.	Nature of Casualty	No.	Colliery.	No.
Her.....	1	Driver	1	Explosion of boiler	1	Big Muddy C. & C. Co.	1
Soto.....	1	Engineer.	1	Explos'n, fire d'mp	1	Brown & Barwell	1
Quoin.....	3	Miners	14	Explos'n, keg pow.	4	Equality Coal Co....	1
Quail.....	1	Timberman....	1	Explos'n, shot, prem	1	Gartside C. Co. No. 4	1
edonia.....	1			Falling coal	1	Ill. Cent. C. & Salt Co	1
ke Creek.....	5			Falling slate	5	Jupiter Mining Co...	3
xphysboro.....	1			Heart disease*	1	Murray, Hugh.....	1
John.....	1			Suff. gas, burn coal	1	Scott-Wilson Coal Co.	1
arta.....	1			Unknown†	1	No. 2.....	1
Illisville.....	2					Williamson Co. C. Co.	5
						Willis Coal & M. Co..	2
Totals.....	17		17		17		17

* Judgment of coroner's jury.

† Cause of death undecided, case pending in court.

Non-Fatal Casualties—Seventh District—1898.

Date.	Name.	Age.	Residence.	Married.	Children.	Single.	Dependents.	Character of Injury.	Time lost—days.
Sept 6	M. Werchmsky.....	30	Hallid'yb'ro	1	3		4	Leg broken.....	45
15	Batistic Sarto.....	35	St. John.....			1		Leg broken.....	90
22	S. J. Rainey.....	28	Ledford.....			1		Arms injured.....	9
23	Ed Ledford.....	26				1		Head bruised.....	7
30	Chas. Meadows.....	25	Carterville..	1	1		2	Body injured.....	7
31	John Corder.....	47		1	3		4	Foot bruised.....	45
Oct 10	Antonio Berea.....	26	M'rphysb'ro	1	1		2	Back injured.....	*
10	Dug Wingatz.....	35	Carterville..	1	4		5	Leg injured.....	7
16	John Hamilton.....	22	M'rphysb'ro	1			1	Arm broken.....	45
16	Charles Smith.....	33	DuQuoin.....	1	2		3	Hips and legs injured.....	60
17	William Roberts.....	23	M'rphysb'ro			1		Head and shoulder injured ..	16
24	Dell Freeman.....	23				1		Head injured.....	9
25	John Gaddis.....	40	Carterville..	1	3		4	Hand injured.....	7
pt 23	John Brown.....	21	M'rphysb'ro	1			1	Body injured.....	12
24	Robert Britton.....	16	Lake Creek..			1		Arm broken.....	45
24	Joseph Barlow.....	16						Leg broken and head bruised ..	*
27	James Mannard.....	23	M'rphysb'ro			1	1	Body injured.....	10
st. 19	Charles Morley.....	70		1			1	Head and back injured.....	24
29	N. Mansker.....	30		1	3		4	Hip and legs injured.....	40
Nov 21	Henry Beltz.....	41	Carterville..	1	4		5	Ankle fractured.....	45
26	Wm. Levesmeyer.....	28	M'rphysb'ro	1	1		2	Head injured.....	12
27	Frank Valle.....	16				1		Fingers injured.....	10
30	George Carson.....	27			1		2	Body injured.....	18
7	John Lewis.....	26		1			1	Arm injured.....	17
17	William Jones.....	19				1		Hand injured.....	8
27	Milton Candiff.....	19	Fredonia ..			1		Leg broken.....	90
28	Frank McNeill.....	32	M'rphysb'ro			1		Hands and arm injured	9
898									
Dec 7	Henry Walker.....	28	DuBois.....	1	1		2	Body injured.....	14
7	James Harris.....	35		1	4		5	Body injured.....	21
10	Marsh Stone.....	21	Carterville..			1		Hand injured.....	14
10	George Reddie.....	40	DuQuoin.....	1	4		5	Body injured.....	45
14	Harvey Wagner.....	23	M'rphysb'ro	1	2		3	Foot injured.....	*
14	James Carter.....	17				1		Arm injured.....	9
18	James Carter.....	17				1		Arm injured.....	12
April 2	Taylor Atkins.....	28		1			1	Head and breast injured.....	16
12	David Bailey.....	18	Sunfield ..			1		Head and arm injured.....	21
20	Walter Ballard.....	30	M'rphysb'ro	1			1	Body injured.....	9
30	Paul Zeto.....	40		1			1	Arm injured.....	10
May 6	Andy Anderson.....	40	DuQuoin....	1	4		5	Back injured.....	30
7	Jasper Knight.....	53	St. John.....	1	4		5	Ankle broken.....	49
10	Lewis Branco.....	23	M'rphysb'ro	1			1	Head injured.....	15
12	M. Boninmisky.....	35	DuQuoin....	1			1	Shoulder injured.....	28
25	John Branco.....	48	M'rphysb'ro	1	6		7	Head and body injured.....	28

Non-Fatal Casualties, 1898—Concluded.

Date.	Name.	Age.	Residence.	Married.	Children.	Single.	Dependents.	Character of Injury.	Time lost—days.
1898							*		
June 1	Jeff West	25	DuQuoin			1		Leg injured	3
.. 24	William Butler	39	Stonefort	1	2		3	Eye put out	3
.. 24	Miles McCullom	50	DuQuoin	1	2		3	Body injured	3
.. 28	Wm. Ratelberge	26	"			1		Leg broken	5
.. 30	Chas. L. P. Peterson	45	"	1	4		5	Head and breast injured	5
	Total			31	59	17	90		18

* Not recovered July 1, 1898.

Total men injured	48
Not recovered July 1, 1898	6
Number recovered	42
Total time lost by men recovered	1,081 days
Average time lost per man recovered	24.5

Recapitulation of Non-Fatal Casualties—Seventh District—1898.

Residence.	No.	Occupation.	No.	Cause of Accident.	No.	Colliery.	No.
Carterville	6	Cagers	3	Cage	1	Big Muddy C. & I. Co.	20
Dubois	2	Drivers	8	Falling coal	10	Butler, William	
DuQuoin	8	Loaders	9	Falling prop.	1	Carterville Coal Co.	
Fredonia	1	Mach. helpers	2	Falling roof	16	Davenport Coal Co.	
Hallidayboro	2	Mach. runners	2	Fire damp	2	DuQuoin Union C. Co.	
Lakecreek	2	Miners	20	Mules, kicked by	2	Enterprise Coal Co.	
Ledford	2	Roadmen	2	Pit cars	12	Gartside Coal Co.	
Murphysboro	21	Trappers	2	Premature blasts	4	Horns Colliery Co.	
St. John	2					Ill. Cent. C. & S. Co.	
Stonefort	1					Kuhn, Adam	
Sunfield	1					Morris Bros. & Co.	
						Muddy V. M. & M. Co.	
						St. L. Big M. C. Co.	
						Scott-Wilson Coal Co.	
						Sun Coal & Coke Co.	
						Williamson C. C. Co.	
Totals	48		48		48		41

showing the Nature of Injuries, Number of Persons Injured, Dependents, Time Lost, with Averages and Percentages, Seventh District.

NATURE OF INJURY.	Number.	Married.	Single.	Dependents.	TIME LOST.		Per cent of injuries.
					Total days.	Average days.	
broken	1	1		5	45	45	2.06
oken	3	2	1	6	139	46.3	6.25
jured	4	2	2	2	47	12	8.33
jured	2	2		7	30	15	4.17
njured	9	9		22	152	16.9	18.75
out	1	1		3			2.06
injured	1		1		10	10	2.06
ured	2	2		7	54	27	4.17
njured	4	1	3	4	38	9.5	8.33
jured	10	6	4	17	141	14.1	20.83
d legs injured	2	2		7	100	50	4.17
oken	5	1	4	4	225	45	10.43
ured	3	1	2	5	22	7.3	6.25
rs injured	1	1		1	28	28	2.06
ls, averages and percentages ...	48	31	17	90	1,031	24.55	100.00

Gallatin County—Seventh District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.							OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades.	
1	Equality Coal Co.....	Equality.....	80	4.10	5	Sh.	S.	B.	11,372	11,372	.....
2	W. K. Stader.....	..	30	4.6	5	D.	Hd	..	3,000	3,000	.....
3	William M. Dain.....	..	31	4	5	Sl.	..	..	425	425	.....
4	John Underwood.....	..	20	4	5	D.	..	..	320	320	.....
5	Marion Brinkley.....	Leamington..	25	4.6	6	..	..	..	55	55	.....
6	Wilburn Thompson.....	..	25	4.6	6	Sl.	Ho.	..	65	65	.....
7	Strong & Talbot.....	Shawneetown	25	4.6	6	D.	..	..	675	540	135
8	Leon Vogt.....	..	30	4.10	6	..	Hd	..	750	600	150	
9	Andrew Reid.....	Saline Mines..	30	4.10	6	..	..	..	150	150	.....
Totals .....			.....	.....	.....	.....	.....	.....	16,812	16,527	285
Averages.....			.....	.....	.....	.....	.....	.....	.....	.....	.....

Whole number of openings reported in 1897, 9.

Whole number of openings reported for 1898, 9.

Hamilton County—Seventh District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.							OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades.	
1	J. C. Harper.....	Flint.....	6	2	...	St.	H.	B.	4,840	4,840	.....
2	R. I. Yates.....	Dahlgreen....	12	2.6	...	..	..	..	42	42	.....
Totals .....			...	...	...	...	...	...	4,882	4,882	.....
Averages.....			...	...	...	...	...	...	...	...	...

Whole number of openings reported in 1897, 3.

Number of mines exhausted or abandoned during the year, 1.

Whole number of openings reported for 1898, 2.

Gallatin County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.				WAGES.			Days of active operation.	Kegs of powder used.	ACCI- DENTS		Capacity of mine— tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of min- ers em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly					
							For hand mining.	For machine mining.						
1	\$0 90	\$10,235	24	6	4	34	\$0 62.5	.....	M.	160	470	1	....	40,000
2	1 00	3,000	4	.....	1	5	62.5	.....	.....	180	50	.....	.....	8,000
3	1 00	425	2	.....	.....	2	62.5	.....	.....	90	23	.....	.....	1,500
4	1 00	320	2	.....	.....	2	62.5	.....	.....	65	18	.....	.....	1,200
5	1 00	55	1	.....	.....	1	62.5	.....	W.	20	.....	.....	.....	1,000
6	1 00	65	1	.....	.....	1	62.5	.....	.....	20	.....	.....	.....	1,000
7	1 00	608	2	.....	1	3	62.5	.....	.....	160	12	.....	.....	1,000
8	80	510	2	.....	.....	3	62.5	.....	.....	175	12	.....	.....	1,000
9	1 00	150	2	.....	.....	3	62.5	.....	.....	40	5	.....	.....	1,000
	.....	\$15,368	40	7	5	52	.....	.....	.....	.....	593	1	.....	55,700
	\$0 92.4	.....	.....	.....	.....	.....	\$0 62.5	.....	.....	101	.....	.....	.....	.....

Hamilton County, 1898—Concluded.

Number.	VALUES.		EMPLOYEES.				WAGES.			Days of active operation.	Kegs of powder used.	ACCI- DENTS		Capac- ity of mine— tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly					
							For hand- mining.	For machine, mining.						
1	\$1 25	\$6,050	6			6	\$0 62.5		W.	140	10			7,500
2	1 50	63	2			2	62.5			10	1			1,000
		\$6,113	8			8					11			8,500
	\$1 25.2						\$0 62.5			75				

Jackson County—Seventh District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.							OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.		Total tons produced.	Tons of lump.	Tons of other grades.
1	Gartside C. Co. No. 1.	Murphysboro.	121	6.6	13	Sh.	S.	M.		35,615	35,300	315
2	.. .. No. 3.	..	146	6.6	13	..	..	..		69,043	49,491	19,552
3	.. .. No. 4.	..	148	6.6	13	..	..	..		88,857	60,904	27,953
4	Big M. C. & I. Co. No. 5	..	150	6.6	13	..	..	..		242,678	169,005	73,673
5	.. .. No. 6	..	150	6.6	13	..	..	..		14,217	14,217	..
6	.. .. Harris'n	..	150	6.3	13	..	..	..		116,164	87,952	28,212
7	Daniel P. Willis.....	..	130	7	13	..	..	B.		12,550	8,800	3,750
8	E. E. Poole.....	..	60	2.8	11	..	..	..		1,636	1,136	500
9	W. C. Beard.....	Carbondale...	35	7.5	7	D.	Hd	..		150	150	..
10	Charles Ritch.....	..	25	7.5	7	Sh.	Ho.	..		550	400	150
11	J. C. Press n.....	..	22	7.6	7	..	..	..		1,500	1,200	300
12	John A. Painter.....	..	20	7	7	..	..	..		220	200	20
13	Oliver Bailey.....	..	25	7	7	..	..	..		350	300	50
14	Sato Coal & M. Co.....	Sato.....	35	6	13	..	S.	..		14,476	14,276	200
15	Mason & Co.....	..	12	6	13	Sl.	Ho.	..		10,100	10,100	..
16	Murph'boro B.M.C.Co	Murphysboro.	49	6	13	Sh.	S.	..		23,596	23,047	549
17	Argus & Barton.....	Sato.....	10	6	13	Sl.	Ho.	..		275	275	..
18	C. S. Jones.....	..	10	6	13	..	..	..		425	425	..
19	Big Muddy C. & C. Co	DeSoto.....	60	9	13	Sh.	S.	..		46,000	29,670	16,330
20	Henry Langwith.....	Campbell Hill	15	3	13	D.	Hd	..		554	554	..
21	Muddy V.M. & Mfg. Co.	Hallidayboro.	166	8	13	Sh.	S.	..		232,238	168,197	64,041
Totals										911,194	675,599	235,595
Averages.....												

Whole number of openings reported in 1897, 21.

Number of new mines or places opened during the year, 2.

Number of mines exhausted or abandoned during the year, 2.

Whole number of openings reported for 1896, 21.

Jefferson County—Seventh District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.							OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.		Total tons produced.	Tons of lump.	Tons of other grades.
1	Mount Vernon C. Co.	Mt. Vernon...	825	4.10	5	Sh.	S.	B.		46,000	30,000	16,000
2	G. W. Shelton	Opdyke.....	6	1.6	5	St.	Hd	..		60	60	..
Totals										46,060	30,060	16,000
Averages.....												

Whole number of openings reported in 1897, 2.

Whole number of openings reported for 1896, 2.

Jackson County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.				WAGES.			Days of active operation.	Kegs of powder used.	ACCI- DEN'S		Capacity of mine— tons.
	Average value of lump per ton at the mine.	Aggregate value of total product.	No. of miners employed.	Other employees under ground.	All employees above ground.	Total employees.	Price paid per gross ton.		Paid monthly, semi-monthly or weekly.			Fatal.	Non-fatal.	
1	\$1 20	\$42,581	20	10	10	40	.....	\$0 50	S-M.	350	225	.....	.....	40,000
2	1 20	73,076	25	15	12	52	.....	29	.....	235	375	.....	.....	100,000
3	1 20	92,653	40	20	15	75	.....	29	.....	270	425	1	1	120,000
4	1 00	205,842	255	50	30	335	\$0 36	29	.....	261	2,320	12	12	300,000
5	1 00	14,217	43	12	12	67	.....	29	.....	70	138	.....	4	80,000
6	1 00	102,058	100	22	18	140	36	29	.....	209	1,030	.....	4	150,000
7	1 50	16,031	15	3	4	22	36	.....	.....	310	75	.....	.....	20,000
8	1 50	2,004	5	1	2	8	90	.....	W.	200	30	.....	.....	3,500
9	1 00	150	.....	.....	.....	2	50	.....	.....	55	5	.....	.....	1,000
10	1 00	460	.....	.....	1	2	.....	.....	.....	150	18	.....	.....	1,000
11	1 00	1,320	.....	.....	1	2	.....	.....	.....	200	50	.....	.....	1,000
12	1 00	208	.....	.....	.....	2	.....	.....	.....	60	7	.....	.....	1,000
13	1 00	320	.....	.....	.....	2	.....	.....	.....	80	12	.....	.....	1,000
14	95	13,642	25	15	7	47	36	.....	S-M.	170	460	.....	.....	25,000
15	80	8,080	14	4	4	22	36	.....	.....	160	420	.....	.....	20,000
16	1 00	23,459	45	9	4	58	36	.....	.....	200	1,200	.....	.....	35,000
17	1 25	544	2	.....	.....	2	.....	.....	.....	70	90	.....	.....	1,000
18	1 25	331	2	.....	.....	2	.....	.....	.....	80	100	.....	.....	1,000
19	75	27,968	50	10	10	70	36	.....	.....	115	800	1	.....	100,000
20	95	526	2	.....	.....	2	.....	.....	.....	105	20	.....	.....	1,500
21	90	183,379	210	30	30	270	29	.....	.....	22	6,657	.....	2	300,000
.....	.....	8808,849	864	201	160	1,225	.....	.....	.....	.....	14,457	2	23	1,302,000
.....	\$1 01.1	.....	.....	.....	.....	.....	\$0 32.3	\$0 30.5	.....	170	.....	.....	.....	.....

* Average for 416,193 tons.

† Average for 490,977 tons.

Jefferson County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.				WAGES.			Days of active operation.	Kegs of powder used.	ACCI- DEN'S		Capacity of mine— tons.
	Average value of lump per ton at the mine.	Aggregate value of total product.	No. of miners employed.	Other employees under ground.	All employees above ground.	Total employees.	Price paid per gross ton.		Paid monthly, semi-monthly or weekly.			Fatal.	Non-fatal.	
1	\$1 10	\$45,000	35	10	10	55	\$0 50	.....	W.	280	500	.....	.....	60,000
2	1 50	90	2	.....	.....	2	.....	.....	.....	12	.....	.....	.....	1,000
.....	.....	\$45,090	37	10	10	57	.....	.....	.....	.....	.....	.....	.....	61,000
.....	\$1 10	.....	.....	.....	.....	.....	\$0 50	.....	.....	146	.....	.....	.....	.....

Johnson County—Seventh District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.							OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades.	
1	D. J. Wallace	New Burnside	20	3.4	3	D.	Hd	B.	360	360	.....
2	New Burnside C. Co. .	"	30	3.8	12	Sl.	Hd	"	540	440	.....
3	Thomas McMichael...	"	18	3.4	3	D.	Hd	"	400	400	.....
4	James Powers	"	20	3.4	3	"	"	"	650	650	.....
5	Walter Smith.....	"	22	3.4	3	"	"	"	80	80	.....
Totals.....									2,030	1,930	.....
Averages.....									.....	.....	.....

Whole number of openings reported in 1897, 6.

Number of new mines or places opened during the year, 1.

Number of mines exhausted or abandoned during the year, 2.

Whole number of openings reported for 1898, 5.

Perry County—Seventh District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam-horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades.
1	DuQ.U.C.C., Brown's	DuQuoin.....	45	6.6	6	Sh.	S.	B.	94,000	48,500	45,500
2	" " Enterpr.	" " " " " "	90	6.6	6	"	"	"	102,000	52,000	50,000
3	" " Egyptian	" " " " " "	90	6.6	6	"	"	"	82,000	52,000	30,000
4	Superior Coal Co.....	" " " " " "	62	6	6	"	"	"	890	515	"
5	Jupiter Mining Co.....	" " " " " "	38	6	6	"	"	"	42,915	25,749	"
6	Horns Colliery Co.....	" " " " " "	80	7	6	"	"	"	95,061	76,331	18,730
7	Greenwood-Davis C.C	" " " " " "	38	6	6	"	"	"	44,603	22,300	22,300
8	Pope Mining Co.....	" " " " " "	44	6.2	6	"	"	"	6,550	6,550	"
9	Morris Bros. & Co.....	" " " " " "	25	6	6	"	"	"	10,500	8,500	"
10	Thos. J. Howell.....	" " " " " "	72	6	6	Sl.	Ho.	"	4,402	4,342	"
11	Ill. Cent. Coal & Salt C.	St. Johns.....	300	9	6	"	S.	"	128,068	97,956	30,112
12	J. W. Howell.....	" " " " " "	28	6.6	6	Sh.	Ho.	"	220	220	"
13	Sun Coal & Coke Co.....	Sunfield.....	80	5.5	6	"	"	"	23,360	18,100	5,260
14	Tamaroa Colliery Co.....	Tamaroa.....	200	5.6	6	"	S.	"	14,350	14,350	"
15	Cicero Barber & Bros.	" " " " " "	200	5.6	6	"	"	"	9,000	6,500	"
16	G. W. Brown.....	Pinckneyville.....	90	6	6	"	"	"	60,164	36,098	24,066
17	Turner & Faust.....	" " " " " "	86	6.6	6	"	"	"	5,150	4,550	"
18	Woods Bros.....	" " " " " "	35	6	6	"	Ho.	"	1,678	1,678	"
19	H. W. Duckworth.....	" " " " " "	35	6	6	"	"	"	1,873	1,873	"
20	Brown & Barwell.....	Cutler.....	72	6	6	"	S.	"	35,000	28,103	6,897
21	Wm. Barnard.....	" " " " " "	122	6	6	"	"	"	12,385	11,725	660
22	Fr-d'k Rosendolf.....	" " " " " "	40	5.5	6	"	Ho.	"	400	400	"
23	Peter Glass.....	Denmark.....	20	5.5	6	"	"	"	160	160	"
24	Willis Coal & Min. Co	Willisville.....	80	6	6	"	S.	M.	70,600	39,606	31,000
Totals.....									845,329	558,100	287,229

ings reported in 1897, 23.

- places reopened during the year, 1.
reported for 1900 24.

Johnson County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.				WAGES.			Paid monthly, semi-monthly or weekly.	Days of active operation.	Kegs of powder used.	ACCI- DEN'S		Capacity of mine— tons.
	Av. value of lump per ton at the mine.	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.								
							For hand- mining.	For machine- mining.							
1	\$1 00	\$360	3	1	1	5	\$0 56	.....	S-M.	80	15	.....	.....	1,500
2	1 15	541	4	1	.....	5	40	.....	..	100	27	.....	.....	5,000
3	1 00	400	2	.....	.....	2	36	.....	..	125	16	.....	.....	1,500
4	1 00	650	2	.....	1	3	36	.....	..	160	26	.....	.....	1,500
5	1 00	80	1	.....	.....	1	36	.....	..	55	4	.....	.....	1,000
.....	.....	\$2,031	12	2	2	16	.....	.....	.....	.....	88	.....	.....	10,500
.....	\$1 03	.....	.....	.....	.....	.....	\$0 43	.....	.....	88	.....	.....	.....	.....

Perry County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.				WAGES.			Days of active operation.	Kegs of powder used.	ACCI- DEN'S		Capacity of mine— tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly.					
							For hand- mining.	For machine- mining.						
1	\$0 70	\$45,325	76	35	20	125	\$0 36	.....	S-M.	150	1,900	..	3	200,000
2	70	48,900	85	30	20	135	36	.....	..	150	2,000	..	1	250,000
3	65	39,800	45	25	10	80	36	.....	..	160	1,750	..	.....	175,000
4	85	663	18	4	4	26	36	.....	..	20	26	.....	.....	25,000
5	95	31,328	50	20	15	85	36	.....	..	200	900	3	.....	75,000
6	75	69,423	115	20	10	145	36	.....	..	160	1,950	..	2	200,000
7	1 05	32,336	80	15	8	103	36	.....	..	120	900	.....	.....	125,000
8	65	4,258	10	4	4	18	36	.....	..	190	325	.....	.....	25,000
9	75	7,275	33	7	6	46	36	.....	..	180	400	2	.....	25,000
10	1 25	5,473	4	.....	1	5	42	.....	..	225	100	.....	.....	7,500
11	75	84,007	105	40	45	190	36	.....	..	270	1,500	1	2	240,000
12	1 00	220	2	.....	.....	2	.....	.....	..	40	4	.....	.....	2,000
13	75	16,205	30	9	9	48	36	.....	..	208	572	..	1	40,000
14	65	9,328	16	6	3	25	32	.....	M.	126	600	.....	.....	30,000
15	65	5,100	12	5	3	20	32	.....	..	112	400	.....	.....	200,000
16	80	38,505	68	12	8	88	40	.....	S-M.	260	2,100	.....	.....	171,600
17	70	3,575	12	2	4	18	40	.....	M.	200	200	.....	.....	150,000
18	1 15	1,930	2	2	1	5	40	.....	W.	180	50	.....	.....	40,000
19	1 16	2,173	3	.....	1	4	40	.....	..	190	52	.....	.....	45,000
20	65	19,646	35	6	4	45	40	.....	S-M.	200	1,200	1	.....	55,000
21	70	8,307	8	1	3	12	40	.....	..	130	250	.....	.....	300,000
22	1 00	400	2	.....	1	3	.....	.....	..	60	10	.....	.....	12,000
23	1 00	160	2	.....	.....	2	.....	.....	..	30	4	.....	.....	1,000
24	75	48,300	75	12	8	95	40	\$0 33	..	243	1,500	2	.....	125,000
.....	.....	\$522,637	882	255	188	1,325	.....	.....	.....	.....	18,693	7	11	2,519,100
.....	\$0 76.5	.....	.....	.....	.....	.....	\$0 36.8	\$0 33	.....	155	.....	.....	.....	.....

Randolph County—Seventh District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades
1	Hugh Murray.....	Sparta.....	140	6	6	Sh	S.	B.	36,184	26,009	10,175
2	Boyd C. & C. Co., No.1	..	80	6	6	Sh	..	..	75,000	75,000	.....
3	.. No.2	..	75	6	6	..	..	..	18,000	18,000	.....
4	Ill. Fuel & P'r Co., No.3	..	36	5.2	6	..	..	..	20,000	20,000	.....
5	George F. Gerlach ..	..	35	6	6	..	Ho.	..	260	260	.....
6	Coulterville Mine. Co.	Coulterville ..	370	6	6	..	S.	..	23,984	21,112	2,872
7	Wm. Goddard, lessee.	Tilden ..	180	6	6	..	..	..	30,611	24,511	6,100
8	Wm. Goalby & Son No.2	Percy ..	70	6	6	..	..	..	10,890	10,890	.....
9	Deans C. & M. Co.....	..	65	6	6	..	..	..	17,576	16,576	1,000
10	Roseboro Coal Co.....	..	30	5	6	..	..	..	10,000	10,000	.....
11	John Myers ..	..	20	6	6	..	Ho.	..	450	450	.....
12	Dietrich Steamer ..	..	18	6	6	..	..	..	600	600	.....
13	Ill. Fuel & P'r Co., No.2	Sparta ..	37	6	6	..	S.	..	25,977	25,977	.....
14	George Stanway ..	Blair.....	22	5	6	..	Ho.	..	3,620	2,500	1,120
15	Enterprise Coal Co ..	..	35	6	6	..	..	..	920	920	.....
Totals									274,072	252,805	21,267
Averages.....											

Whole number of openings reported in 1897, 15.

Whole number of openings reported for 1898, 15.

Saline County—Seventh District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump coal.	Tons of other grades
1	Davenport Coal Co...	Harrisburg...	144	8	5	Sh.	S.	B.	88,953	74,619	14,334
2	Harrisburg M. & C. Co	..	200	8	5	Sh.	S.	B.	3,362	3,362	.....
3	John A. Moody ..	..	13	4.10	6	Sl.	Ho.	..	2,280	2,280	.....
4	Dorris & Evans ..	..	21	4.10	6	..	..	..	2,450	2,450	.....
5	Wiley Odum ..	..	20	4.8	6	..	..	..	575	515	60
6	George Rilying ..	..	20	4.8	6	..	..	..	870	740	130
7	William Butler ..	Stonefort.....	12	3	6	D.	..	..	150	150	.....
8	John Hawkins ..	..	27	3.4	6	..	..	..	180	180	.....
9	W. J. Stephens ..	..	20	3	6	Sl.	..	..	120	120	.....
10	P. D. Stagner ..	..	25	3.4	6	..	Ho.	..	140	140	.....
11	H. A. Sittig ..	..	40	3	6	..	..	..	130	130	.....
12	Noah Stiff ..	S'th America.	15	5	6	D.	..	..	200	200	.....
13	J. J. Berry ..	Cottage Grove	18	4	6	..	Ho.	..	140	140	.....
14	F. M. Jarrell ..	..	20	4	6	..	..	..	200	200	.....
15	James Lyod.....	..	25	4.6	6	..	..	..	225	225	.....
Totals									100,005	85,481	14,524
Averages.....											

Whole number of openings reported in 1897, 16.

Number of mines exhausted or abandoned during the year, 1.

Whole number of openings reported for 1898, 15.

Randolph County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.				WAGES.			Days of active operation.	Kegs of powder used.	ACCI-D'NTS		Capacity of mine—tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners employed.	Other employes under ground.	All employes above ground.	Total employes.	Price paid per gross ton.		Price paid monthly, semi-monthly or weekly			Fatal.	Non-fatal.	
1	\$0 90	\$31,548	70	12	6	88	\$0 40	.....	S-M.	210	1,315	1	....	120,000
2	80	60,000	50	7	5	62	40	.....	M.	280	1,500	.....	.....	100,000
3	80	14,400	12	2	3	17	40	.....	.....	240	300	.....	.....	30,000
4	90	18,000	16	2	2	20	40	.....	S-M.	200	350	.....	.....	30,000
5	90	234	2	.....	.....	2	.....	.....	.....	80	14	.....	.....	1,000
6	1 00	22,261	25	15	4	44	40	.....	.....	151	400	.....	.....	45,000
7	80	21,744	26	5	5	36	40	.....	.....	150	964	.....	.....	60,000
8	80	8,712	28	5	4	37	40	.....	.....	150	600	.....	.....	25,000
9	90	15,368	30	5	4	39	40	.....	.....	220	800	.....	.....	25,000
10	90	9,000	22	5	3	30	40	.....	.....	140	550	.....	.....	25,000
11	1 00	450	2	.....	.....	2	.....	.....	.....	90	42	.....	.....	2,000
12	1 00	600	2	.....	.....	2	.....	.....	.....	100	50	.....	.....	2,000
13	90	23,379	24	5	5	34	40	.....	.....	260	425	.....	.....	35,000
14	90	2,922	4	.....	1	5	40	.....	M.	188	76	.....	.....	5,000
15	90	528	2	.....	1	3	40	.....	.....	160	20	.....	.....	3,000
.....	.....	\$229,446	315	63	43	421	.....	.....	.....	.....	7,406	1	.....	508,000
.....	\$0 85.8	.....	.....	.....	.....	.....	\$0 40	.....	.....	173	.....	.....	.....	.....

Saline County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.				WAGES.			Days of active operation.	Kegs of powder used.	ACCI-D'NTS		Capacity of mine—tons.
	Av. value of lump per ton at the mine	Aggregate value of total product.	No. of miners employed.	Other employes under ground.	All employes above ground.	Total employes.	Price paid per gross ton.		Price paid monthly, semi-monthly or weekly			Fatal.	Non-fatal.	
1	\$0 80	\$65,429	65	13	9	87	\$0 28	.....	S-M.	250	1,900	.....	2	120,000
2	80	2,600	15	2	4	21	28	.....	.....	60	70	.....	.....	25,000
3	1 00	2,280	4	.....	1	5	62.5	.....	W.	110	40	.....	.....	7,500
4	1 00	2,480	4	.....	1	6	80	.....	M.	130	50	.....	.....	7,500
5	1 00	545	4	.....	.....	4	.....	.....	.....	40	10	.....	.....	2,500
6	1 00	805	3	.....	.....	3	50	.....	W.	90	17	.....	.....	2,600
7	1 00	150	.....	.....	.....	.....	.....	.....	.....	65	6	.....	1	1,000
8	1 00	180	.....	.....	.....	.....	.....	.....	.....	75	7	.....	.....	1,000
9	1 00	120	.....	.....	.....	.....	.....	.....	.....	45	5	.....	.....	1,000
10	1 00	140	.....	.....	.....	.....	.....	.....	.....	50	6	.....	.....	1,000
11	1 00	130	.....	.....	.....	.....	.....	.....	.....	45	5	.....	.....	1,000
12	1 00	200	.....	.....	.....	.....	.....	.....	.....	75	7	.....	.....	1,000
13	1 00	140	.....	.....	.....	.....	.....	.....	.....	50	6	.....	.....	1,000
14	1 00	200	.....	.....	.....	.....	.....	.....	.....	55	8	.....	.....	1,000
15	1 00	225	.....	.....	.....	.....	62.5	.....	.....	40	10	.....	.....	2,000
.....	.....	\$75,714	113	16	15	144	.....	.....	.....	.....	2,147	.....	3	175,100
.....	\$0 81.8	.....	.....	.....	.....	.....	*\$0 30.4	.....	.....	78.7	.....	.....	.....	.....

* Average for 98, 170 tons.

Washington County—Seventh District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.							OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades	
1	Hugh Murray, lessee.	Nashville.....	425	5.6	6	Sh.	S.	B.	20,026	17,026	3,000	
2	P. D. Breuggerman ..	.....	376	5.5	6	..	..	..	6,256	6,256	.....
3	Adam Kuhn.....	DuBois.....	296	5.6	6	..	..	..	15,720	12,576	3,144
4	Okawville W.S.C.&Co	Okawville	320	5.6	6	..	..	..	1,806	1,806	.....
Totals									43,808	37,664	6,144	
Averages.....												

Whole number of openings reported in 1897, 4.

Whole number of openings reported for 1898, 4.

Williamson County—Seventh District—1898.

Number.	Name of Operator.	Postoffice.	DESCRIPTION.						OUTPUT.		
			Depth of coal—feet.	Thickness of coal—feet and inches.	Geological number of seam.	Shaft, slope or drift.	Steam, horse or hand power.	Mined or blasted.	Total tons produced.	Tons of lump.	Tons of other grades
1	St. L. Big Muddy C. Co.	Cartersville....	90	9.2	7	Sh.	S.	B.	319,697	189,596	130,101
2	Cartersville Coal Co.	.....	60	9.2	7	..	..	..	113,378	60,176	53,202
3	Scott-Wilson C. C. No. 1	.....	50	9.3	7	..	..	..	100,000	60,000	40,000
4	No. 2	.....	65	9.2	7	..	..	..	80,000	56,000	24,000
5	John A. Young .....	.....	21	9.2	7	Sl.	Ho.	..	3,608	3,608	.....
6	O. & M. V. C. & M. C. No. 1	Marion.....	60	9	7	S.	..	..	108,400	60,400	48,000
7	No. 2	.....	78	9	7	Sh.	..	M.	18,500	11,400	7,100
8	Ohio Valley C. & C. Co.	.....	20	9	7	Sl.	..	..	45,000	25,000	20,000
9	Crab Orchard C. Co..	.....	40	9	7	Sh.	..	B.	22,500	11,250	11,250
10	William Jack .....	.....	40	9	7	..	Ho.	..	160	90	70
11	William Allen.....	.....	8	8	7	St.	Hd	..	1,200	600	600
12	Big. M. C. & I. Co. No. 7	Herrins.....	140	9.6	7	Sh.	S.	..	39,670	32,820	6,850
13	John Reid.....	.....	40	8.6	7	..	Ho.	..	1,100	1,000	100
14	A. W. Crawford, lessee	Lake Creek.....	150	8.4	7	..	S.	..	59,080	33,675	25,405
15	E. E. Ensminger.....	Crab Orchard	25	5.6	6	D.	Ho.	..	525	500	25
16	Edward & Allen.....	.....	20	5.6	6	..	..	..	300	300	.....
17	R. L. Chaney.....	.....	20	5.6	6	..	Hd	..	400	400	.....
18	W. C. Campbell.....	.....	20	5.6	6	..	..	..	175	175	.....
19	Charles Notsinger.....	.....	22	5.6	6	..	..	..	220	220	.....
20	Neally Bros.....	Absher.....	10	6	6	St.	..	..	100	100	.....
21	Robert Shroiver.....	.....	7	5	6	..	..	..	50	50	.....
22	William Read.....	.....	7	5	6	..	..	..	50	50	.....
23	Grant Ritchie.....	.....	7	5	6	..	..	..	30	30	.....
24	William Ritchie.....	.....	8	7	6	..	..	..	80	80	.....
25	E. W. Notsinger.....	.....	8	7	6	..	..	..	85	85	.....
26	W. H. Williams.....	Blairsville.....	80	8.10	7	Sh.	S.	..	800	750	50
Totals									915,108	548,355	366,753
Averages.....											

Whole number of openings reported in 1897, 25.

Number of new mines or places opened during the year, 3.

Number of mines exhausted or abandoned during the year,

Whole number of openings reported for 1898, 26.

Washington County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.				WAGES.			Days of active operation.	Kegs of powder used.		ACCI- DEN-TS		Capacity of mine- tons.
	Av. value of lump per ton at the mine.	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly.		Fatal.	Non-fatal.			
							For hand- mining.	For machine- mining.							
1	\$0 85	\$16,422	22	5	3	30	\$0 37.5	.....	S. M.	200	600	..	..	35,000
2	70	4,379	10	3	3	16	40	.....	..	125	175	..	..	15,000
3	65	9,589	25	6	6	37	30	.....	M.	185	520	..	2	25,000
4	1 25	1,258	2	12	1	5	62.5	.....	W.	150	40	..	..	5,000
	.....	\$31,648	59	16	13	88	.....	.....	.....	.....	1,335	..	2	80,000
	\$0 75.1	.....	.....	.....	.....	.....	\$0 36.2	.....	.....	165	.....	.....	.....	.....

Williamson County, 1898—Concluded.

Number.	VALUES.		EMPLOYES.				WAGES.			Days of active operation.	Kegs of powder used.	ACCI- DENTS		Capacity of mine- tons.
	Av. value of lump per ton at the mine.	Aggregate value of total product.	No. of miners em- ployed.	Other employés un- der ground.	All employés above ground.	Total employés.	Price paid per gross ton.		Paid monthly, semi- monthly or weekly.					
							For hand- mining.	For machine- mining.						
1	\$0 73	\$169,629	114	57	35	206	\$0 30		S. M.	304	8,667	..	4	540,000
2	65	63,055	104	25	15	144	30		..	204	2,850	..	1	175,000
3	65	51,000	65	11	11	87	30		..	240	3,000	..	1	160,000
4	65	43,600	60	19	11	90	30		..	200	2,200	1	1	150,000
5	1 00	3,608	2		1	3			W.	200	75			5,000
6	70	69,080	95	22	10	127	30		S. M.	220	2,700			180,000
7	70	10,465	9	8	5	22		\$0 25	..	180	350			40,000
8	70	24,500	50	10	10	70		25	..	200	1,609			160,000
9	90	14,625	30	6	6	42	30		M.	15	600			100,000
10	1 25	162	2		1	3	30		S. M.	15	6			2,000
11	1 25	1,350	12			2	30		..	100	10			3,000
12	90	33,648	21	9	15	45	30	25	..	260	1,126			60,000
13	1 00	1,050	2		1	3			..	122	50			2,000
14	80	37,102	50	7	5	62	30		..	100	1,020	5	2	125,000
15	75	381	12		1	3			W.	60	16			3,000
16	1 00	300	12			12			..	100	5			1,000
17	80	320	12			100			..	100	8			1,200
18	85	149	12			32			..	35	6			1,000
19	85	187	12			32			..	45	8			1,000
20	90	90	12			32			..	20	4			1,000
21	90	45	1			1			..	21	2			1,000
22	90	45	1			1			..	15	2			1,000
23	90	27	1			1			..	18	1			1,000
24	90	72	12			32			..	19	3			1,000
25	90	77	12			32			..	20	3			1,000
26	1 25	963	12		1	3			S. M.	110	20			3,000
.....		\$525,530	627	174	128	929			.....	.....	24,441	6	9	1,708,200
	\$0 77	.....	.....	.....	.....	.....	\$0 30	\$0 25	.....	120	.....	.....	.....	.....

Recapitulation by Counties—

COUNTY.	MINES.					PRODUCTS.					VALUES.	
	Number of mines.	Shipping mines.	Mines in local trade.	New mines.	Abandoned mines.	Total tons produced.	Tons of lump coal.	Tons of other grades.	Tons shipped.	Estimated capacity (in tons) of existing mines.	Average value per ton of lump at the mine.	Aggregate value of total product.
Gallatin,....	9	1	8	...	...	16,812	16,527	285	10,022	55,700	\$0 92.4	15,368
Hamilton. ...	2	...	2	...	1	4,882	4,882	.....	.....	8,500	1 25.2	6,113
Jackson.....	21	11	10	2	2	911,194	675,599	235,595	836,004	1,302,000	1 01.1	808,849
Jefferson ...	2	1	1	...	...	46,060	30,060	16,000	8,000	61,000	1 10	45,090
Johnson	5	2	3	1	2	2,030	1,930	100	840	10,500	1 03.3	2,031
Perry.	24	19	5	1	...	845,329	558,100	287,229	762,534	2,519,100	76.5	522,637
Randolph...	15	10	5	...	...	274,072	252,805	21,267	249,236	508,000	85.8	229,446
Saline.....	15	2	13	...	1	100,005	85,481	14,524	69,102	175,100	81.8	75,714
Washington	4	3	1	...	...	43,808	37,664	6,144	24,900	80,000	75.1	31,648
Williamson.	26	10	16	3	2	915,108	548,355	366,753	835,723	1,708,200	77	525,530
Totals	123	59	64	7	8	3,159,300	2,211,403	947,897	2,796,361	6,428,100	.....	\$2,262,426
Averages..	...	...	...	...	...	.....	.....	.....	.....	.....	\$0 86.8	.....

Whole number of openings reported in 1897, 124.

Number of new mines or places opened during the year, 7.

Number of mines exhausted or abandoned during the year, 8.

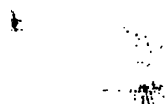
Whole number of openings reported for 1898, 123.

Seventh District—1898.

EMPLOYEES.			Average number of days of active operation.	Number of kegs of powder used.	CASUALTIES.				WAGES.		MACHINES.		
Number of miners.	Number of other employees.	Total employes.			Killed.	Injured.	Widows.	Children.	Average price paid per gross ton.		Number of mines using machines.	Number of machines in use.	Total tons cut by machinery.
									For hand mining.	For machine mining.			
40	12	52	101	593	1	...	1	3	\$0 62.5	.....	.....	.....
8	.....	8	75	11	.....	.....	.....	.....	62.5	.....	.....	.....
864	361	1,225	170	14,457	2	23	1	8	32.3	\$0 30.5	6	36	490,977
37	20	57	146	500	.....	.....	.....	.....	50	.....	.....	.....
12	4	16	104	88	.....	.....	.....	.....	43	.....	.....	.....
882	443	1,325	155	18,693	7	11	6	11	36.8	33	1	4	55,000
315	106	421	173	7,406	1	...	1	1	40	.....	.....	.....
113	31	144	78.7	2,147	.....	3	.....	.....	30.4	.....	.....	.....
59	29	88	165	1,335	.....	2	.....	.....	36.2	.....	.....	.....
627	302	929	120	24,441	6	9	.....	.....	30	25	3	13	36,500
2,957	1,308	4,265	.....	69,671	17	48	9	23	.....	.....	10	53	582,477
.....	.....	.....	135.9	.....	.....	.....	.....	.....	\$0 34.4	\$0 30.4	.....	.....	.....

APPENDIX.

REGISTER OF CERTIFICATED—
MINE MANAGERS.
HOISTING ENGINEERS.
FIRE BOSSES.
REPORT ON INSPECTION FEES.



REGISTER OF CERTIFICATED MINE MANAGERS, HOISTING ENGINEERS AND FIRE BOSSES.

NOTE.—This list includes all the mine managers to whom certificates were issued prior to January 1, 1899.

The names which are printed in *italic* are those who hold both certificates of service and subsequent certificates of competency acquired through examination.

The names which are followed by the abbreviation "ex." are those who have exchanged certificates of service for those of competency, without examination, under the provisions of the amendment of 1895.

The postoffice addresses here given are those recorded at the time the certificate was issued, and in many cases are not the present addresses of the certificate holders.

MINE MANAGERS HOLDING CERTIFICATES OF COMPETENCY.

Name.	Postoffice.	Name.	Postoffice.
<i>Adams, Charles T.</i>	Rosboro.....	Baumer, Fred.....	Marquette.....
Adams, J. M.....	Wanlock.....	Bauer, Valentine.....	Clyde.....
Ainsworth, Samuel.....	Taylorville.....	Baxter, William.....	Ladd.....
Ainsworth, Samuel, Jr.....	".....	Beattie, John.....	Danville.....
Ainsworth, Thomas.....	".....	Beatty, James.....	Mascoutah.....
Aitken, James.....	Streator.....	Beatty, James H.....	".....
<i>Anderson, William</i>	".....	Becker, F. W.....	Pinckneyville.....
Anderson, W. C.....	Elmwood.....	Beharelle, Alfred.....	Orchard Mines.....
Anderson, James.....	Ladd.....	Bell, Richard.....	Gillespie.....
<i>Andreas, Aug.</i>	Belleville.....	Bell, William.....	Streator.....
<i>Angel, Hiram.</i>	".....	Belger, John.....	Nilwood.....
Angell, Charles.....	".....	Bengston, John A. ex.....	Galva.....
Apblett, William R.....	Springfield.....	Bennett, James.....	Odin.....
Atkinson, Edward.....	Streator.....	Bennett, John.....	Centralia.....
Atkinson, William.....	Murphysboro.....	Berkstresser, W. A.....	DuQuoin.....
Atkinson, William.....	Braceville.....	Betts, Joseph E.....	Belleville.....
Armstrong, Thomas J.....	Spring Valley.....	<i>Betz, Charles C.</i>	DuQuoin.....
Archer, John.....	Beclay.....	Bevard, John J.....	Kimmundry.....
Aston, Hubert, ex.....	Fairmont.....	Beveridge David.....	Sorento.....
Archibald, David.....	Freeburg.....	Beggs, Samuel, ex.....	Clark City.....
<i>Ax, John.</i>	Edwardsville.....	Biebel, Henry, ex.....	Rentchler.....
<i>Azford, Thomas.</i>	Petersburg.....	Biggins, James.....	Sorento.....
		Bingham, Robert.....	O'Fallon.....
Baker, Gustav.....	Streator.....	Bird, George W.....	Coffeen.....
Back, Thomas.....	Mapleton.....	Birtin, Henry.....	Pana.....
Bailey, William.....	Athens.....	Birtley, William P.....	Springfield.....
Bailey, Joseph.....	DuQuoin.....	Blake, Alfred.....	Hanna City.....
Ball, Edward.....	Bartonville.....	Blair, Gus.....	Murphysboro.....
<i>Bangart, Henry.</i>	Lincoln.....	Boettcher, F. J.....	New Athens.....
Barlow, Henry.....	Coffeen.....	Boston, G. W.....	Murphysboro.....
Barnett, Oliver.....	Bryant.....	Boston, James.....	DuQuoin.....
Barron, James, ex.....	Cantrall.....	Bottomley, Edward.....	Oglesby.....
<i>Bashong, Andrew M.</i>	Danville.....	Bottomley, John.....	".....
<i>Barwell, John.</i>	Marissa.....	Bowers, Robert.....	Wenona.....
<i>Bates, W. H.</i>	Winchester.....	Bowie, James.....	Braidwood.....
Bates, R. D.....	".....	<i>Bracken, James A.</i>	Greenville.....
		Bradenburger, F.....	Belleville.....

Mine Managers—Certificates of Competency—Continued.

Name.	Postoffice.	Name.	Postoffice.
Brockhouse, Samuel.	Caseyville.	Davis, Thomas.	Dunfermline.
Brigham, Wm.	Marissa.	Davis, P. J.	Percy.
Brown, John.	Glen Carbon.	Davis, William.	Litchfield.
Brown, William J.	Coal City.	Davidson, M.	DuQuoin.
Brown, F. M.	Farmington.	Davison, James.	Sparta.
Browning, J. M.	DuQuoin.	Dawson, Richard.	Athens.
Brueggemann, George.	Belleville.	Deans, Henry.	Percy.
Bulmer, John, ex.	St. John.	Denny, John J.	Springfield.
Bulmer, Benjamin.	Muddy Valley.	Devlin, Henry.	Toluca.
Bundy, John.	Streator.	Devlin, Thomas H.	Spring Valley.
Burdette, J. P.	Colchester.	Diamond, Peter.	DuQuoin.
Burke, George, ex.	Peru.	Dick, Robert.	Belleville.
Burkhardt, John B.	Mt. Olive.	Dickenson, James E.	Danville.
		Dickerson, J. L.	Cable.
		Dodd, William.	St. David.
Cairns, John.	Moweaqua.	Dodge, H. N.	Carterville.
Callear, Isaac.	Pottstown.	Donahoe, James.	Kangley.
Cameron, David J.	Pana.	Donaldson, Wm.	Peoria.
Campbell, William.	Sandoval.	Donaldson, James W.	Carterville.
Campbell, Frank J.	Athens.	Donaley, James.	Glenburn.
Campbell, Thomas M.	Pinckneyville.	Dooner, P. J.	Danville.
Canfield, R. A.	Madisonville, Ky.	Doughty, James.	Virginia.
Carson, J. H.	O'Fallon.	Dougherty, Daniel.	Muddy Valley.
Carter, Charles.	Birkner.	Dowell, Thomas.	Briar Bluff.
Carter, George.		Downing, Timothy.	Streator.
Cartlidge, Oscar.	Gillespie.	Drake, George.	Pana.
Carroll, John.	O'Fallon.	Duddey, John.	Kinmundy.
Catheart, Matthew, ex.	Tilden.	Dudek, John.	Belleville.
Chalderton, John.	Lenz Station.	Duffner, J. W.	Streator.
Cherry, John T.	Seatonville.	Duncan, Charles.	Odin.
Cherry, James.		Dunlop, John.	Sunfield.
Cherry, W. S.	Streator.		
Checklin, David.	Reed City.		
Chivers, Joseph.	Braceville.	Edwards, S. E.	Centralia.
Christie, David.	Murphysboro.	Edwards, Thomas.	Springfield.
Church, Henry M.	Marissa.	Ehret, Frank A.	Wesley.
Clark, Martin.	Decatur.	Eller, William.	Edwardsville.
Clark, Quintin.	Braidwood.	Emery, Charles.	Breese.
Clark, Thomas.	Decatur.	Emery, Joseph.	Belleville.
Clelland, Robert.	Braidwood.	English, Ralph.	Mt. Olive.
Clifford, Michael J.	Kewanee.	English, Thomas.	Streator.
Coar, Firman.	Worden.	Evans, George.	Lincoln.
Collier, Frank J.	Bartonville.	Evans, John Nine, ex.	LaSalle.
Collins, Richard J., ex.	O'Fallon.	Evans, John O., ex.	O'Fallon.
Condis, Malcolm.	Spring Valley.	Evans, Albert E.	Streator.
Conity, Patrick.	DuQuoin.	Evans, William.	Norris.
Cooper, Charles.	Linwood.	Evans, John O., Jr.	Caseyville.
Cook, Robinson.	Riverton.		
Connors, William.	Toluca.		
Conrad, William.	Springfield.	Fagan, Michael.	Spring Valley.
Costor, George.	Grape Creek.	Fagan, Patrick.	Decatur.
Cowell, William.	Assumption.	Fohl, Bernard, ex.	Belleville.
Craine, John E.	Murphysboro.	Fairlie, James.	Gilchrist.
Craine, B. S.		Falcetti, John B.	Glen Carbon.
Crampton, Edward.		Farnsworth, Lawrence, ex.	Barclay.
Crauch, J. E.	Virde.	Farrand, Wm.	Springfield.
Crankshaw, Thomas.	Decatur.	Felker, John.	Danville.
Crankshaw, William.		Fellows, Edward.	Streator.
Crighton, Robert.	Chenoa.	Ferguson, John.	Reed City.
Cruikshanks, John.	Farmington.	Ferguson, Walter.	Braidwood.
Cruikshanks, Wm.	Middle Grove.	Finrock, M. M.	Pana.
Cryer, James T.	Spring Valley.	Fleming, James.	Decatur.
Cumming, Ambrose B.	Sparland.	Fleming, Jacob.	Kewanee.
Cumming, James P.		Fletcher, John.	LaSalle.
Cumming, John P.	Braceville.	Fletcher, John J.	Collinsville.
Cumming, Thomas S.	Gardner.	Fletcher, T. C.	
Cumming, D. H.		Fletcher, William.	
Cunningham, Thomas.	Girard.	Foley, George, ex.	LaSalle.
Cunningham, Cormick.	Springfield.	Foley, W. E.	Mapleton.
		Forsythe, Peter.	Centralia.
Daenzer, Anton.	Belleville.	Forsythe, Robert.	Murphysboro.
Dale, Henry.	Murphysboro.	Foster, William.	Lincoln.
Dale, John.	Fredonia.	Francis, T. L.	Braidwood.
Daniels, James.	Belleville.	Frazee, William H.	Danville.
Daniels, Samuel.		Franken, Benard.	Lincoln.
Danney, William.	Lincoln.	Freer, James.	Peoria.
Davis, Caleb.	Collinsville.	Friska, Jan.	Edwardsville.
Davis, J. H.	Cuba.	Fritz, William, ex.	Breese.

Certificates of Competency—Continued.

Name.	Postoffice.	Name.	Postoffice.
Gaffigan, Michael	Petersburg	Hill, Marshall	Cartersville
Garrity, John	Riverton	Hillery, Edward	Colchester
Gaul, Henry J.	Ridge Prairie	Hoffman, John	DuQuoin
Gavin, Barney	Springfield	Holmes, Thomas F.	Lincoln
Gell, Philip	Gilchrist	Houston, Robert	Percy
Gibson, Michael	Spring Valley	Howell, Thomas H.	DuQuoin
Gilbert, Edward	Niantic	Howell, D. J. ....	.....
Giles, William	Gillespie	Howells, Eben	Braceville
Gilchrist, John W.	Gilchrist	Hoye, James	Braidwood
Glass, William H.	Pana	Hoye, William .....	.....
Goalby, John F.	Gillespie	Huddy, T. H.	Staunton
Goalby, William H., ex.	Percy	Hudson, Thomas	Etherly
Goddard, Benjamin B.	DuQuoin	Hughes, James	Braidwood
Goddard, William .....	.....	Hughes, John W. ....	.....
Godler, William	Cuba	Hughes, Hugh J.	Pana
Golden, George	Springfield	Hughes, John J.	Litchfield
Golden, William D. ....	.....	Hunne, J. A.	Hillary
Goodall, George	Assumption	Hummert, Henry	Breese
Grabuck, R. H.	Staunton	Humphreys, Edward	Murphysboro
Graham, Hiram	Virden	Hunt, Albert J.	Edwards
Graham, John W.	Dunfermline .....	.....	.....
Graham, Louis A.	Jack-onville .....	.....	.....
Graham, William	Virden	Iberson, James	Athens
Graham, David L.	Springfield	Issininghaus, William	Lebanon
Grant, Peter, Jr.	Peoria	Izat, William	Litchfield
Gratz, Gottlieb	Hornush .....	.....	.....
Granlick, Jul. M.	Belleville .....	.....	.....
Gray, Thomas R.	Springfield	Jacobson, Charles P.	St. David
Green, Arthur	Braceville	James, John	Mt. Olive
Green, Joseph, ex.	Marissa	James, Jonah	Grape Creek
Green, John W.	Springfield	Jacques, William	Belleville
Green, Robert .....	.....	Jacques, Richard .....	.....
Greenwood, John R.	Edinburg	Jefford, R. H.	Kingston Mines
Greenwood, Robert	DuQuoin	Jefford, Thomas H., ex.	Kingston
Greives, Peter	Collinsville	Jeffrey, Peter	Cartersville
Grindrod, William E.	Belleville	Jenkins, Alexander	Dunfermline
Groom, John .....	.....	Jenkins, Thomas C.	Murphysboro
Grosspitch, August .....	.....	Jernware, William M.	DuQuoin
Guest, Joseph, ex. ....	.....	John, Evan D.	Spaulding
Guiney, James T.	Braidwood	Johnston, Cochran	Spring Valley
.....	.....	Johnston, Samuel	Oglesby
.....	.....	Jolly, Thomas J.	Collinsville
.....	.....	Jones, Charles	Marissa
.....	.....	Jones, David .....	.....
Haddick, John, Jr.	Cable	Jones, D. L.	Taylorville
Haddick, William, ex.	Sherrard	Jones, Edward	Oglesby
Haddow, Thomas	Pana	Jones, Harry D.	Riverton
Hagerton, Joseph	St. John	Jones, John H.	DuQuoin
Haile, George	Ladd	Jones, Logan	Marissa
Hall, Matthew	Braceville	Jones, T. L.	Ladd
Hainsel, Daniel	Lenzburg	Jones, William	Marissa
Halbert, J. A.	Westville	Jones, William E.	Sheffield
Hamilton, Thomas	Nashville	Jones, William E.	Wesley City
Hanley, John H.	Springfield	Jones, William M.	Tamaroa
Hardin, Joseph H.	Vandercook	Jordon, Robert	Streator
Harding, Enos	Birkner .....	.....	.....
Harding, Thomas F.	Danville .....	.....	.....
Harding, William	Lebanon .....	.....	.....
Harkes, William	Coal City	Kable, Joseph	Coulterville
Harrison, Earnest	Streator	Kane, Charles H.	Dunfermline
Harrison, John	Virden	Karrail, Edgar	Braceville
Harrison, John, ex.	Odin	Kating, James A.	Streator
Harrison, William	Murphysboro	Keay, A. H. S.	Seatonville
Harrow, James T.	Seatonville	Keay, John	Springfield
Hartman, Frank, ex.	Murphysboro	Keefer, William	Danville
Hauck, Fred	Glen Carbon	Keil, Matthew	Dubo's
Heyes, Henry	Streator	Keil, Peter .....	.....
Hebenstreit, Bruno	Staunton	Kelley, Bernard	Litchfield
Hebenstreit, J. P. ....	.....	Kelley, D. J.	Carbon Hill
Heifrich, Henry	Rentchler	Kelly, Frank S.	Centralla
Henderson, Joseph	Coal City	Kelly, Joseph G., ex.	Braidwood
Henderson, Thomas	Marissa	Kelley, Robert D.	Carbon Hill
Henley, J. H.	New Athens	Kelly, J. D. Sr. ....	.....
Henley, Richard	Niantic	Kempper, Henry	Gillespie
Heppard, George	Tilden	Kerr, John	Rushville
Henry, Frederick	Kewanee	Kidd, Alexander	Oglesby
Henry, John T.	Pontiac	Kidd, Andrew .....	.....
Henry, Philip	Kewanee	Kidd, W.	Ridge Prairie
Hertot, James	Spring Valley	Kidd, Neugene .....	.....
Hetherington, Benj. M.	LaSalle	Kienbush, David	Edwards Station
Hickey, John	Springfield .....	.....	.....

Mine Managers—Certificates of Competency—Continued.

Name	Postoffice.	Name.	Postoffice.
Kirby, James.....	Athens.....	Morrin, D. A.....	Danville.....
Kirchner, Frank.....	Belleville.....	Morgan, George.....	Springfield.....
Kirkwood, Martin.....	Berkner.....	Morgan, Joseph.....	Streator.....
Klinginfus, Otto.....	Belleville.....	Morris, G. W.....	Lebanon.....
Kloever, Joseph.....	Pana.....	Morris, J. H.....	Nashville.....
Knies, Henry.....	Breese.....	Morris, P. K.....	Roanoke.....
Kortkamp, William.....	Hillsboro.....	Morris, William M.....	Belleville.....
Kramer, Anthony F.....	Sato.....	Morris, Joseph, ex.....	Nashville.....
Krantz, Jacob.....	Belleville.....	Morrissey, Thomas.....	Lebanon.....
		Morrison, D. H.....	Girard.....
		Morton, Andrew.....	Virginia.....
		Morton, Robert.....	
Lacour, August.....	Bartonville.....	Mould, Thomas R.....	O'Fallon.....
Laesser, Adolph.....	Belleville.....	Murphy, Jerry.....	Chatham.....
Lander, Alexander, ex.....	Cartersville.....	Murphy, John.....	Braidwood.....
Larger, James M.....	Athens.....	Murphy, Patrick.....	Springfield.....
Laws, J. M.....	Cuba.....	Murray, A.....	Nashville.....
Lawson, John.....	Mt. Olive.....	Murray, David.....	Sparta.....
Lawson, Thomas.....	Lake Creek.....	Murray, Hugh.....	
Lee, Robert.....	Cable.....	Murray, J. H.....	Galva.....
Lee, Shellcross G.....	Canton.....		
Lenning, W. C.....	DuQuoin.....		
Lettsome, William.....	Carbon Hill.....		
Lettsome, Absalom.....		McAllister, Hector.....	Streator.....
Lewis, James.....	Bryant.....	McCann, Patrick.....	Lincoln.....
Lewis, William.....	Streator.....	McCleary, John.....	Cantrall.....
Lindley, Richard.....	Collinsville.....	McCleary, James.....	Kangley.....
Lindsay, John O.....	DuQuoin.....	McClintock, John.....	Murphysboro.....
Linsky, P. J.....	Braidwood.....	McCrindle, David.....	Oglesby.....
Lister, James H.....	Peters Station.....	McDonald, Robert.....	Streator.....
Little, Thomas.....	Summerfield.....	McDonald, William.....	Braidwood.....
Lloyd, David J.....	Edinburg.....	McFadden, Jos.....	Danville.....
Lloyd, John E.....	Danville.....	McFarland, William A.....	Edwardsville.....
Lloyd, Thomas.....	Rentchler.....	McGeachin, Robert.....	Sorento.....
Logan, Thomas J.....	Streator.....	McGinnis, John.....	Springfield.....
Long, Thomas.....	Waplock.....	McGunnigal, John.....	Murphysboro.....
Lord, John S.....	Springfield.....	McGunnigal, James.....	Marissa.....
Love, John W.....	Carbon Hill.....	McGunnigal, Bernard.....	Spring Valley.....
Lowery, Frank.....	Orchard Mines.....	McKean, Isaac.....	Coal City.....
Lumaghi, Joseph.....	Collinsville.....	McKeown, Frank.....	Decatur.....
Lumaghi, Louis F.....		McKernan, James.....	Collinsville.....
		McKillop, Donald.....	Carbon Hill.....
		McLean, Robert.....	Girard.....
		McManaman, Patrick F.....	Spring Valley.....
		McMorrow, Michael.....	Farmington.....
		McMath, George.....	Cartersville.....
		McMurtie, A. B.....	Bryden.....
Macke, P. H.....	Ledford.....	Nael, Reese.....	Kangley.....
Malcolm, William J.....	Braceville.....	Neal, Albert M.....	Murphysboro.....
Malloy, Henry E.....	Decatur.....	Neal, William.....	
Maltby, William.....	Braidwood.....	Needles, Thadeus.....	Glenburn.....
Marland, John, Sr., ex.....	Wenona.....	Neil, Peter, ex.....	Bunker Hill.....
Martin, George.....	Farmington.....	Newman, Henry T.....	Springfield.....
Mason, Eli.....	Edinburg.....	Newsam, John.....	Kingston.....
Mason, Mark, Jr.....	Sato.....	Newsam, Richard.....	Orchard Mines.....
Massie, John G.....	Marissa.....	Newsam, Richard, Jr.....	Kingston Mines.....
Matthews, W. S.....	Kinmundy.....	Newsam, Thomas.....	
Maxwell, Angus.....	Carlinville.....	Newsam, Thomas, Jr.....	
Mays, John F.....	Pana.....	Nesbit, Charles, ex.....	Millstadt.....
Medill, Duncan.....	Oglesby.....	Nevenner, John.....	Belleville.....
Meehan, Patrick.....	Breeds.....	Nicholson, George A.....	Cuba.....
Meehan, Peter.....	Williamsville.....	Nicholson, William.....	
Michaelis, Theodore.....	Belleville.....	Nold, Fred.....	Freeburg.....
Millard, John.....	Peoria.....	Nordeen, Peter.....	Galva.....
Millburn, Thomas.....	Loceyville.....		
Middleton, James L.....	Sandoval.....		
Michaels, Lewis.....	Belleville.....		
Michaels, Otto L.....			
Miller, Alexander.....	Ridge Prairie.....		
Miller, Hugh.....	Coal City.....		
Miller, William.....	Lenzburg.....		
Milem, John.....	Norris.....		
Millett, Thomas.....	Collinsville.....	O'Brien, John W.....	Toluca.....
Mills, T. J.....	Cable.....	O'Brien, John J.....	Marquette.....
Mitchell, T. J.....	Pana.....	O'Brine, Patrick J.....	Spring Valley.....
Moffatt, R. E.....	Percy.....	O'Brine.....	Pana.....
Moffat, Thomas.....		O'Conn.....	Spring Valley.....
Monaghan, Edward.....	Carbon Hill.....	O'Conn.....	Braidwood.....
	Springfield.....	O'Lea.....	Marquette.....
		Opie.....	Sandoval.....
		Owen.....	Marion.....

Certificates of Competency—Continued.

Name.	Postoffice.	Name.	Postoffice.
Parker, Albert	Colinsville	Scholl, Joseph	Bartonville
Patchet, John	Murphysboro	Schramm, Richard	Belleville
Patterson, J. C.	Assumption	Scully, William J.	Glen Carbon
Pearl, John	Braidwood	Scurrah, Castling R.	Braceville
Percell, Thomas	Norris	Secor, Frederick D.	Odin
Peters, J. D.	Murphysboro	Senioe, George	St. John
Pettier, Moses	Spring Valley	Sevan, Charles	Danville
Phillips, James	Minonk	Sharp, Montgomery, ex	Coal City
Pickett, Robert	Spring Valley	Sholeen, R. A.	Galva
Pictou, Joseph	St. David	Sholl, Joseph, ex	Bartonville
Pierce, William	Edinburg	Shields, Frank D.	Pana
Pool, Edgar E.	Murphysboro	Shuler, Charles	Gilchrist
Poster, George	Mapleton	Sidall, John S.	Pana
Postle, John	Braceville	Sidall, James	Streator
Powell, Albert E.	Belleville	Simkin, Samuel	Canton
Powell, Evan	Murphysboro	Simmons, Thos.	Glen Carbon
Powell, David, ex	Braceville	Simpson, Isaac	Spring Valley
Powell, J. E.	Sao.	Simpson, David	Springfield
Powell, Thomas H.	Belleville	Simpson, George A.	
Powell, Samuel	Roanoke	Simpson, George C.	Collinsville
Prince, Thomas	Gillespie	Simpson, William J.	
Pryce, John M.	Coal Valley	Simpson, Thomas	O'Fallon
Pugh, Daniel	St. John	Sisk, A. J.	Eouality
Pullen, Charles	Litchfield	Skinner, Alexander	Diamond
		Skinner, David	
		Skinner, John	
Raby, Robert A.	Cuba	Skinner, John	Astoria
Radford, Thomas, ex	Bloomington	Sloan, Edward C.	Wesley City
Radford, William	Cuba	Small, James	Middle Grove
Rae, Robert	Braidwood	Smethurst, Nathan	Spring Valley
Ramsey, Charles J.	Gillespie	Smith, Alexander M.	Sandoval
Randle, Jesse	Birkner	Smith, David P.	Dawson
Rauth, John	Belleville	Smith, Feltz	Birkner
Rasmussen, James E.	Mineral	Smith, George A.	Sandoval
Reagan, Daniel	Muddy Valley	Smith, James L.	Mount Olive
Reavley, Robert	Riverton	Smith, James L.	Riverton
Redyard, John	Odin	Smith, James P.	Collinsville
Reed, W. M.	Girard	Smith, Joseph	Bloomington
Reese, Daniel	Danville	Smith, T. J.	Pana
Reid, Andrew	Springfield	Smith, William	Athens
Reid, Joseph	Marion	Smith, William G.	Riverton
Reiley, Edward	Danville	Smith, W. J.	Girard
Reimann, John	Belleville	Sneddon, Richard	Virden
Rennison, Henry	St. John	Sollenberger, Harry C.	Dunfermline
Reynolds, William	East Peoria	Spies, Alfred	Braceville
Rhodes, Jefferson	Pana	Springer, Albert R.	Glen Carbon
Richardson, Joseph	Litchfield	Stachle, August	Belleville
Richardson, Robert	Cartersville	Stanton, William E., ex	Colchester
Ridgely, O. L.	Mt. Olive	Steel, Alexander	Streator
Ritchie, Alex., Sr.	Clinton	Steel, Daniel	Collinsville
Ritchie, A., Jr.	Trenton	Steel, James	Spring Valley
Roberts, Benjamin D.	Streator	Steel, Neal	Centralia
Roberts, John D., ex		Stewart, D. G.	Seatonville
Robinson, Henry	Gardner	Stirrat, James	Peoria
Robinson, John T.	Kingston Mines	Stockett, Howard N.	Springfield
Rodden, John	Pana	Stockett, Lewis	Collinsville
Rodenburg, Charles	Belleville	Stockett, Thos. R., Jr.	St. Louis, Mo.
Roe, Samuel	Oglesby	Stockman, W. H.	DuQuoin
Roe, Thomas		Storrie, Archibald	Seatonville
Rogers, Josiah	Braidwood	Stratman, Henry, ex	Springfield
Rollo, George	Mount Olive	Strebel, George	Edwardsville
Rollo, John	Gillespie	Strickland, John	Coal City
Rollo, William	Pana	Sutton, Thomas	Millstadt
Rookin, Thomas	Edwards Station	Swapsberg, John L.	Danville
Ross, David	Oglesby	Swarthout, J. P.	Peoria
Rovland, Charles, ex	Belleville		
Rundle, John C.	Colchester		
Rutledge, Walton	Alton		
Rutledge, J. J.	Staunton	Tallman, John, ex	Kangley
Ryan, James	Springfield	Taylor, Charles	Edwards
Ryan, Thomas	N. Springfield	Taylor, Daniel	
		Taylor, Henry	Belleville
		Taylor, James	Edwards
		Taylor, Joseph	Springfield
		Taylor, Thomas, ex	O'Fallon
		Taylor, Thomas, ex	Springfield
		Thom, Alexander, ex	Coal City
Sangrelet, Marshall	Mount Olive		
Sansom, Henry S., ex	Streator		
Sauer, Frederick	Belleville		
Seafe, William	Coal City		

Mine Managers—Certificates of Competency—Concluded.

Name.	Postoffice.	Name.	Postoffice.
Thom, James.....	Carbon Hill.....	Whennen, Charles.....	Oglesby.....
Thomas, H.....	Westville.....	Whitaker, John.....	Collinsville.....
Thomas, John R.....	Ladd.....	Whitaker, William J.....	.....
Thomas, T. J.....	Collinsville.....	Whitehead, Joseph.....	Farmington.....
Thomas, Reese.....	Spaulding.....	<i>Wild, James.</i>	Murphysboro.....
Thomas, Richard.....	Ridge Prairie.....	Wiley, Robertson.....	St. David.....
Thome, Martin, ex.....	Bartonville.....	Wilkinson, Frank.....	Westville.....
<i>Thompson, John</i>	DeSoto.....	Wilkinson, T. H.....	Diamond.....
Thompson, Robert C.....	Murphysboro.....	Williams, James.....	Murphysboro.....
<i>Thornton, James</i>	DuQuoin.....	Williams, Jeff.....	Farmington.....
Thorand, Joseph.....	Trenton.....	Williams, John.....	Riverton.....
Tolle, E. B.....	Kingston Mines.....	Williams, Louis.....	Belleville.....
Tregoning, Walter.....	Murphysboro.....	Williams, Robert H.....	Girard.....
Twomley, Edwin, ex.....	Coal Valley.....	<i>Williams, Walter</i>	DuQuoin.....
		Williams, W. W.....	Hornsby.....
Vallow, Charles.....	Kinmundy.....	Williamson, Wm.....	Staunton.....
Vandebur, John, ex.....	Springfield.....	Wilson, David.....	Murphysboro.....
Vicary, John, ex.....	Lincoln.....	Wilson, Hugh.....	Kinmundy.....
Vose, John.....	Springfield.....	Willson, Hiram.....	Carbondale.....
		Wilson, H. C.....	Pekin.....
Wagner, I.....	Mapleton.....	Wilson, John B.....	Sparta.....
Wallace, David.....	Carterville.....	Wilson, J. G.....	Cuba.....
Walland, Ed. S., ex.....	Bartonville.....	Wilson, John J.....	Wesley City.....
Walschtag, Stephen.....	Peoria.....	Wilson, Robert.....	Roanoke.....
Walsh, Patrick.....	Springfield.....	Wilson, Thomas.....	Norris.....
Walters, Wm. H.....	Staunton.....	Wilson, W. R.....	Reed City.....
Wanless, Isaac.....	Riverton.....	Winning, James.....	Carterville.....
<i>Wanless, William</i>		Winning, Robert.....	
Wantling, T. J.....	Peoria.....	Winterbottom, John.....	Murphysboro.....
Walters, Thomas W.....	Ladd.....	Winters, Samuel P.....	Bartonville.....
Watts, Thomas J.....	Elmwood.....	Wolschlag, Stephen, ex.....	Peoria.....
Watts, William.....		Woods, William, ex.....	Morris.....
Weeks, Thomas.....	Streator.....	Wright, John.....	Belleville.....
Weisenborn, F. E.....	Mt. Olive.....	Wright, J. W.....	Kingston Mines.....
Wenneborg, Otto.....	Springfield.....		
Westwater, David.....	Pekin.....	Young, Hiram.....	Girard.....
Westwood, Albert.....	Belleville.....	Young, Hugh G.....	Braidwood.....
Westwood, John.....	Streator.....		
<i>Westwood, Thomas</i>	Belleville.....	Zoller, Robert H.....	Braidwood.....
Wheatcraft, James.....	Elmwood.....		

MINE MANAGERS HOLDING CERTIFICATES OF SERVICE.

Name.	Postoffice.	Name.	Postoffice.
<i>Adams, Charles T.</i>	Rosboro.....	<i>Christie, David</i>	Murphysboro.....
Alsopp, William H.....	New Castle.....	<i>Collier, Frank J</i>	Bartonville.....
<i>Anderson, William</i>	Streator.....	<i>Cooper, Charles</i>	Nilwood.....
<i>Andreas, August</i>	Belleville.....	<i>Cantor, George</i>	Grape Creek.....
<i>Angel, Hiram</i>	Glen.....	Crawson, Elihu.....	O'Fallon.....
Atkinson, Edward.....	Streator.....	Cummings, William.....	Rushville.....
<i>Axford, Thomas</i>	Petersburg.....	Cusack, M.....	Edwards.....
Bailey, Robert.....	Sunfield.....	<i>Dale, John</i>	Fredonia.....
<i>Bangart, Henry</i>	Lincoln.....	Davenport, John.....	Harrisburg.....
Bartlett, Thomas.....	Cuba.....	<i>Davis, Caleb</i>	Collinsville.....
<i>Barwell, John</i>	Cutler.....	<i>Davison, Matthew</i>	DuQuoin.....
<i>Bates, W. H.</i>	Winchester.....	<i>Deans, Henry</i>	Percy.....
<i>Betz, Charles O</i>	DuQuoin.....	<i>Donaly, James</i>	Carterville.....
Bolander, John.....	Pekin.....	<i>Duffner, J. W.</i>	Belleville.....
<i>Bracken, James A</i>	Greenview.....		
Brown, Jabez.....	Cutler.....	Ensminger, Emanuel E.....	Crab Orchard.....
Brown, Thomas M.....	Pinckneyville.....	Entwistle, Robert.....	Colchester.....
Bunting, J. H.....	Grape Creek.....	Erwin, William.....	West Belleville.....
<i>Bushong, Andrew M</i>	Danville.....	Esper, Peter.....	Spaulding.....
Caldwell, James.....	Elmwood.....	<i>Fagan, Patrick</i>	Decatur.....
Cameron, Duncan S.....	Sorento.....	Fletcher, Adam.....	Ladd.....
<i>Cape, Thomas</i>	Fairview.....	<i>Forsythe, Peter</i>	Centralla.....
<i>Chere, George</i>	Pleasant Plains.....	Forsythe, Thomas.....	Millersburg.....
		Fowler, Henry.....	

Certificates of Service—Concluded.

Name.	Postoffice.	Name.	Postoffice.
<i>l. Bernard</i>	Lincoln.....	<i>McGonnigal, Bernard</i>	Spring Valley....
<i>Edvard</i>	Niantic.....	<i>McKernan, James</i>	Collinsville.....
<i>John</i>	Peoria.....	<i>Neal, William</i>	Murphysboro....
<i>William</i>	Cuba.....	<i>Nicholson, William</i>	Cuba.....
<i>George</i>	Springfield.....	<i>Noyd, Lewis</i>	Galva.....
<i>Henry</i>	Orchard Mines...	<i>Oexner, Wendelin</i>	West Belleville..
<i>David</i>	Pekin.....	<i>Parkin, William</i>	Sweetwater.....
<i>ohn</i>	Roanoke.....	<i>Patterson, J. C.</i>	Assumption.....
<i>Robert</i>	Springfield.....	<i>Pearl, John</i>	Braidwood.....
<i>oid, Robert</i>	DuQuoin.....	<i>Pfander, Fred</i>	Peoria.....
<i>Peter</i>	Collinsville.....	<i>Pickett, Robert</i>	Canton.....
<i>William A.</i>	Colona.....	<i>Pool, Edgar E.</i>	Murphysboro....
<i>k, Robert</i>	Cable.....	<i>Price, David</i>	Fairbury.....
<i>l, Daniel</i>	Lenzburg.....	<i>Price, James L.</i>	Danville.....
<i>n, Ernest</i>	Streator.....	<i>Pullen, Charles</i>	Sorento.....
<i>John L.</i>	LaSalle.....	<i>Ridford, William</i>	Cuba.....
<i>William</i>	Streator.....	<i>Randle, Jesse</i>	Birkner.....
<i>unes</i>	Braidwood.....	<i>Reynolds, William</i>	East Peoria.....
<i>James</i>	Tallula.....	<i>Royster, Moses L.</i>	Peoria.....
<i>s, Eugene</i>	Bartonville.....	<i>Rusche, Christian</i>	East Peoria.....
<i>rr, William M.</i>	DuQuoin.....	<i>Ryan, James</i>	Springfield.....
<i>David</i>	Marissa.....	<i>Schmidt, Frank P.</i>	Limestone.....
<i>George, Jr.</i>	Bartonville.....	<i>Shaw, Nathan</i>	Kramm.....
<i>Andrew</i>	Wenona.....	<i>Smith, David P.</i>	Dawson.....
<i>Eugene</i>	Ridge Prairie...	<i>Smith, Felix</i>	Breese.....
<i>Bernard</i>	Kewanee.....	<i>Solomon, Robert</i>	Springfield.....
<i>shagen, Henry</i>	Belleville.....	<i>Spencer, George</i>	DuQuoin.....
<i>Anthony F.</i>	Sato.....	<i>Stanway, George</i>	Blair.....
<i>attus, Philip H.</i>	Tamaroa.....	<i>Stark, Andrew</i>	Galva.....
<i>Charles</i>	Belleville.....	<i>Stewart, David J.</i>	Seatonville.....
<i>Hosea W.</i>	Sheffield.....	<i>Stuhlsatz, Michael</i>	Kewanee.....
<i>Mark, Jr.</i>	Sato.....	<i>Sutton, Thomas</i>	Millstadt.....
<i>Robert</i>	Belleville.....	<i>Swan, Charles</i>	Oakwood.....
<i>Patrick</i>	Breeds.....	<i>Swisher, James E.</i>	St. David.....
<i>Peter</i>	Williamsville.....	<i>Telfer, Alexander W.</i>	Morris.....
<i>th, C. W.</i>	Augusta.....	<i>Terrill, Thomas</i>	Colchester.....
<i>s, Lewis</i>	Belleville.....	<i>Thompson, John</i>	DeSoto.....
<i>Nicholas</i>	Lebanon.....	<i>Thornton, James</i>	DuQuoin.....
<i>William</i>	Lenzburg.....	<i>Waugh, George, Sr.</i>	Peoria.....
<i>John</i>	Norris.....	<i>Wanless, William</i>	Riverton.....
<i>Thomas</i>	Collinsville.....	<i>Westwood, Thomas</i>	Belleville.....
<i>Thomas</i>	Percy.....	<i>Wild, James, deceased</i>	Murphysboro....
<i>an, Edward</i>	Carbon Hill.....	<i>Wilkin, John B.</i>	Petersburg.....
<i>Jeremiah</i>	Danville.....	<i>Williams, John</i>	Sato.....
<i>Robert</i>	Virginia.....	<i>Williams, John T.</i>	Coalville.....
<i>John</i>	Braidwood.....	<i>Williams, Walter</i>	DuQuoin.....
<i>y, James</i>	Kangley.....	<i>Wilms, William</i>	Springfield.....
<i>ald, Daniel</i>	Menard.....		
<i>ell, James A.</i>	Grape Creek.....		

HOISTING ENGINEERS HOLDING CERTIFICATES OF COMPETENCY.

NOTE.—This and the following list include all the hoisting engineers to whom certificates were issued prior to January 1, 1899. The postoffice addresses here given are those recorded at the time the certificates were issued, and in many cases are not the present addresses of the certificate holders.

Name.	Postoffice.	Name.	Postoffice.
Ablen, Henry	Breese	Burlinson, Aaron	Percy
Adams, Nelson	Lincoln	Burr, Chauncy	Coulterville
Alexander, Henry	Oglesby	Burrell, G. K.	Farmington
Alexander, W. A.	Rosboro	Butcher, Thomas	Murphysboro
Allen, C. E.	Troy	Butt, Thomas R.	Litchfield
Allen, C. H.	Seneca	Bryne, Michael	LaSalle
Anderson, Henry	Lincoln		
Anderson, W. C.	Elmwood		
Anderson, Z. B.	Sparta		
Andrews, Solomon	Girard	Cagle, Alfred	Marion
Appleton, Thomas	Viriden	Cain, Daniel	Ridgely
Archibald, David	Freeburg	Cain, Daniel P.	..
Armstrong, C.	Muncie	Cain, John	..
Armstrong, William C.	Marion	Callear, Isaac	Pottstown
Ashman, Joseph	Murphysboro	Cameron, Daniel	Pana
Atkin, Robert R.	Tilden	Camp, John R.	Westville
Atwater, Stephen	Clarke City	Campbell, Fred	Sorento
Averill, C. P.	Colchester	Campbell, W. J.	Coal City
Avery, William	Lenz Station	Cantrell, H. T.	Farmington
		Carmichael, Thos.	Springfield
		Carpenter, Charles	Girard
Baker, C. H.	Fairmount	Carr, Robert H.	Freeburg
Barber, C. E.	DuQuoin	Carrington, Eugene	Moweaqua
Barber, C. W.	..	Chapman, J. B.	Petersburg
Barnhill, H. G.	Kinmundy	Chapman, William E.	Salisbury
Barr, Frank	Centralia	Chew, B. R.	Carlinville
Barton, C. W.	Cable	Christ, Philip	Wenona
Barton, Charles W.	Fairmount	Clark, C. N.	DuQuoin
Beard, Charles A.	Streator	Clark, John	Marquette
Beatty, James H.	Mascoutah	Clark, John	Viriden
Beatty, Nepha	..	Clark, Quintin	Braidwood
Becker, Fritz	Mt. Olive	Clickner, C. S.	Witt
Bertin, Henry	Pana	Clifford, Michael	Kewanee
Bienert, J. O.	Spaulding	Clifton, Wm. H.	Sparland
Bigelow, A. E.	..	Coatney, Grant	Fairmount
Blake, Albert	Streator	Collinton, Chas	Belleville
Blair, George	..	Collingwood, Wm.	Greenview
Bohlen, Henry E.	Mt. Olive	Colton, George C.	Cartersville
Boring, Frank L.	Odin	Conley, John	Streator
Boston, W.	..	Connelly, J. J.	Murphysboro
Bradburn	..	Conway, John	Collinsville
Brade	..	Conway, Michael	Ladd
Bras	..	Cornelius, Richard	Fairmount
Bre	..	Cottle, Elmer	Buffalo
Brc	..	Cotton, George	Hallidayboro
R-	..	Cover, Edward	Marquette
		Crankshanks, Robt	Idle Grove
		Crawfords, George	..
		Crawford, Geo. A.	..
		Crawford, Geo. P.	..
		Crawford, Rober	..

Certificates of Competency—Continued.

Name.	Postoffice.	Name.	Postoffice.
Danah, John W.	Springfield	Friesland, C. M.	Salisbury
Daniel, James.	Belleville	Fritz, Gustav	Breese
Daniels, Joel		Fry, D. W.	Clark City
Dankins, Thos. J.	Braceville	Ferguson, S. P.	Strasburg
Darmstadter, William	New Athens	Fusten, D. H.	Murphysboro
Davis, Jackson	Athens		
Davis, E. E.	Auburn	Gateley, James	Seatonville
Davis, Frank	Lincoln	Gates, William S.	Kankakee
Davis, Harry J.	DuQuoin	Gallagher, Peter	Clark City
Davis, James P.	Belleville	Gaughan, James	Braidwood
Davis, John W.	Lake Creek	Geer, Benjamin H.	Wolcott
Davis, John	Belleville	Geer, U. S.	Pekin
Davis, L. D.	Coffeen	Gibson, John	Sandoval
Dawson, Van C.	Spring Valley	Gillson, R. W.	Danville
Deaton, L. B.	Tallula	Girfen, Henry	Troy
DeBacher, Thomas	Elmwood	Gladders, William	Coal City
Dee, Henry	Glen Carbon	Goalby, Arthur A.	Percy
DeJarnett, Thomas	Mt. Vernon	Goalby, B. F.	
DeJmore, Frank	Springfield	Goalby, Frank H.	Stookey
Delorey, William	Westville	Gordon, E. J.	Petersburg
Dent, William	Diamond	Gould, George	Sato
Dick, Robert	Sunfield	Gowin, Frank	Green Ridge
Dillon, John	Auburn	Grace, John T.	Kewanee
Dixon, George	Wenona	Graham, L. A.	Bloomington
Dodwell, Edward J.	Decatur	Greaves, Walter	Ladd
Doolin, E. W.	Pontiac	Green, Daniel	Braidwood
Dochring, Fred	Mt. Olive	Green, Thomas	Marissa
Dougherty, Joseph	Taylorville	Greenhalgh, James	Hillsboro
Dowler, John	Auburn	Greenhalgh, Wm	
Dowling, Ira F.	Springfield	Grice, Albert	Kewanee
Drake, William	Streator	Grieves, James	Birkner
Duffy, Glenn E.	Collinsville	Griffin, John O.	Kewanee
Duncan, J. R.	LaSalle	Groom, John, Sr.	Belleville
Dunstedler, William S.	Edwardsville	Groom, James	"
Dyer, Harry	DuQuoin	Groom, William	"
		Grubb, Michael	Riverton
Eddy, Evermont	Athens	Geistdorfer, Fred	DeSoto
Eatham, G. A.	Girard	Guy, D. F.	Springfield
Edwards, George W.	Springfield	Groom, John	Belleville
Elliott, Clarence	Bryant		
Elliott, H. H.	Centralia	Haddick, William L.	Sherrard
Edwards, Thomas	Spring Valley	Haensel, Edward	Lenzburg
Eman, Ransom R.	Farmington	Haensel, David	
Ellis, Albert	Cable	Hagler, Charles	Fredonia
Elmore, V. M.	Coffeen	Hale, William T.	Troy
Emery, H. W.	Greenville	Hall, G. R.	Colchester
English, Thomas	Streator	Hamilton, James H.	Sparland
Erisman, Jacob D.	Niantic	Hampton, N. R.	Murphysboro
Erisman, Jesse		Hand, P. L.	Peoria
Evans, C. L.	Virden	Handle, Ledlie	Taylorville
Evans, Price	Bissel	Hanenstein, J. W.	Willisville
Evans, W. E.	Danville	Hanes, W. J.	Salem
		Hankins, John W.	Sorento
Fahay, John	Decatur	Hanvey, John J.	Collinsville
Falkenstein, George A.	Astoria	Hanvey, Robert	"
Farley, James	Riverton	Hanvey, William	
Ferguson, John J.	Spring Valley	Happer, Frank	Edwardsville
Ferris, W. H.	Marquette	Harding, Enos	Birkner
Fillingham, J. A.	Canton	Harper, Oscar	Lebanon
Finnigan, Thomas J.	Springfield	Hardy, Thos. W.	Dawson
Fischer, Phillip	Lenzburg	Harris, J. W.	Springfield
Fisher, George	Staunton	Hartman, Frank	Murphysboro
Flesher, A.	Taylorville	Hawker, J. O.	Pana
Fletcher, Henry A.	Ladd	Hayes, Arthur H.	Danville
Fox, Frank L.	Assumption	Hayes, James	Bloomington
Forister, Robt.	Murphysboro	Hayler, George L.	Murphysboro
Forister, William		Head, John S.	Assumption
Fortney, John W.	Kinmundy	Hendrick, C. W.	O'Fallon
Poster, A. J.	Litchfield	Hennegan, John F.	Wanlock
Fox, James B.	LaSalle	Henry, Philip	Kewanee
Frain, Austin	Ridge Prairie	Herder, Walter	Edwardsville
Frankland, Tim	Streator	Herring, George P.	Odin
Freeman, M. F.	Shelbyville	Herring, J. P.	Staunton
Freeman, E. F.	DuQuoin	Hershaw, A. F.	Abingdon
Freund, J. W.	Collinsville	Hess, Edward B.	Morrisonville
Frier, Jacob	Ormsby	Hillard, James	St. David
Friend, William L.	Collinsville	Hill, C. C.	Marissa

Hoisting Engineers—Certificates of Competency—Continued.

Name.	Postoffice.	Name.	Postoffice.
Hill, C. W.	Pontiac	Lockhart, Louis	Niantic
Hill, Emberson	Westville	Lockie, William	Cartersville
Hilmes, Henry	Astoria	Loebel, Frank	Trenton
Hobbs, Francis E.	Centralia	Lucht, M. F.	Mt. Olive
Hodgson, Edward	Murphysboro	Lundley, Ralph	Ridge Prairie
Hoecker, Charles	Glen Carbon		
Hopper, George		McCauley, Aaron	Streator
Hopper, H. H.	Gillespie	McConachie, Ed.	Auburn
Hord, Alvin	Taylorville	McCormack, James J.	Springfield
Hottinger, J.	Freeburgh	McCulley, G. L.	Pawnee
Huggins, William	Murphysboro	McCunky, Tobias	Assumption
Huggins, J. A.	Streator	McDonald, John	Springfield
Hughes, John C.	Springfield	McDonald, William J.	Percy
Hull, Lee	Murphysboro	McFarland, F. E.	Murphysboro
		McGittigan, Thomas	Pana
Irwin, Byron	Pana	McGowan, J. R.	Herrins Prairie
Irwin, John	Gillespie	McKean, John	Carbon Hill
Isadore, George	Rosboro	McKean, Isaac	Coal City
		McKearnan, J. B.	Athens
Jacobs, George R.	Elmwood	McKee, C. L.	Lake Creek
Jacobs, James M.	Moweaqua	McKeerman, John	Belleville
Jacobs, William	Murphysboro	McLaughlan, F. T.	Carbon Hill
Jacobs, W., Sr.	Peoria	McLaughlin, George	
Jeffrey, James	Marrissa	McPherson, James	Murphysboro
Jenkins, John L.	Streator	McVey, Frank W.	Roanoke
Jenkins, T. E.	Dauville	McVicar, Donald	LaSalle
Jenks, William	Athens		
Johnson, John W.	Bloomington	Mader, Charles H.	Staunton
Johnson, J. S.	Birkner	Manley, Leo	Coffeen
Johnson, Robert	DuQuoin	Mainwaring, James	Braceville
Johnson, Wm. H.	Pawnee	Mair, Max	Lebanon
Johnston, Joseph R.	Spring Valley	Maltby, Edward	Braidwood
Johnston, Thomas	Pontiac	Marland, James	Wenona
Jones, George	Freeburg	Marland, William	Spartland
Jones, Henry E.	Belleville	Marshall, Robert	Murphysboro
Jones, John P.	Staunton	Martin, N. W.	Marion
Jones, Jonathan, Jr.	Marrissa	Marxer, Louis J.	Milstadt
Jones, Jonathan, Sr.	"	Massie, J. T.	Belleville
Jones, Logan	"	Matthews, C.	Willisville
Jones, William	"	Maule, William	Belleville
Jones, William	Braceville	Maxwell, Fred.	Peoria
Jordan, Robert	Streator	Mayor, J. W.	DuQuoin
Judd, Charles E.	Edwardsville	Meadows, William	Ledford
		Meyer, Henry	Trenton
Keating, Edward F.	Streator	Michaels, Otto L.	Belleville
Keating, Richard		Miller, A. J. F.	Centralia
Kelley, James D.	Carbon Hill	Miller, James	Alma
Kelley, Robert D.		Miller, T. H.	Raymond
Kidd, Alonzo	Fairmount	Miller, William C.	Rentchler
Kilbride, T. C.	Farmington	Mills, Thomas S.	Coal City
Killinger, C.	Collinsville	Monaghan, James	Gillespie
Killinger, John		Moor, F. J. W.	Springfield
Kimber, John	Ladd	Morck, John	Belleville
Kingerfus, Wm.	Belleville	Morgan, John C.	Springfield
Kinghom, John	Staunton	Morgan, William	Carbon Hill
King, Alexander, Sr.	Cartersville	Morris, George	Belleville
King, Alexander, Jr.		Morris, James H.	Nashville
King, L. B.	Smithboro	Morris, William	Mt. Olive
Kirshner, Frank	Belleville	Morrissey, Thomas	Lebanon
Klaus, Louis		Morrisson, Archie	Oglesby
		Mulvany, A. T.	Glenburn
Lambert, George W.	LaSalle	Murphy, Robert T.	Norris
Larkin, James G.	Athens	Murrie, Archie	Trenton
Lavallier, U. S.	Chenopa	Murray, Joseph P.	Rosboro
Lawson, George	Cable	Myers, Henry	Minonk
Layne, J. W.	DeSoto		
Lehman, Philip	Lebanon	Needham, Daniel	Breese
Lemons, J. L.	Girard	Nelson, Andrew V.	Centralia
Leslie, N. B.	Braidwood	Nentzel, Fred H.	Caseyville
Lewis, Alvin	Callin	Newal, Leroy	Spartland
Lindskey, Martin H.	Streator	Nevenor, James	Belleville
Lindstrom, Oscar	Sherrard		
Little, Thomas	Murphysboro	Nicol, Adolph	
		Norborg, Ester	Galva

Certificates of Competency—Continued.

Name.	Postoffice.	Name.	Postoffice.
O'Brien, Terry	Decatur	Roy, A. L.	Collinsville
O'Donnell, Michael	Pana	Russell, Zenas	Pana
Ogden, Samuel	Mascoutah	Rutliff, Isaac	Ashland
Olinger, J.	Odin		
O'Neal, James	Streator	Sadler, George	Murphysboro
Ople, Frederick	Mt. Olive	Sallade, J. E.	Chatham
Ord, S. R.	Mt. Vernon	Sands, Robert K.	Marissa
Osburn, Glen L.	Streator	Savage, Richard	Clarke City
Otto, John	Collinsville	Sawers, Joseph	Coal City
Outhouse, John	Johnson City	Saylor, C. F.	Murphysboro
		Schafer, Fred	Belleville
Paddock, W. D.	Pana	Scharinck, Frank	Edwardsville
Paden, J. W.	Spring Valley	Schmacker, Herman	Glen Carbon
Parks, James	Streator	Schroeder, Charles	Mt. Olive
Patterson, R. J.	Murphysboro	Schroeder, Henry	
Patterson, W. M.	St. Louis, Mo.	Schnessel, Conrad	Breesee
Pearce, H. L.	Cable	Schulte, Fritz	Clinton
Peecher, David	Braidwood	Scott, J. W.	Colchester
Pemberton, C. H.	DuQuoin	Secor, F. D.	Odin
Perkes, Ephraim	Vandercook	Seeman, John C.	Cantrall
Petrea, J. W.	Centralia	Seidel, Fred	Kinmundy
Philip, J. M.	Athens	Seiler, William	Ormsby
Piper, James	Worden	Shroyer, A. D.	Lincoln
Piper, Oliver G.	Glen Carbon	Siddall, John	Belleville
Pircher, Peter P.	Sandoval	Siddall, Levi	
Pitra, Frank	Odin	Slocum, Clarence	Gilchrist
Pitt, Joseph	Trenton	Smith, Edward J.	Collinsville
Plummer, Benjamin	Streator	Smith, George W.	Virginia
Plocker, Henry	Pana	Smith, George W.	St. Louis, Mo.
Pointer, Edward H.	Belleville	Smith, S.	Marseilles
Powell, Edwin	Caseyville	Smyth, C. M.	Danville
Powell, F. C.	Seatonville	Sneddon, John	O'Fallon
Price, Thomas	Spaulding	Sneddon, Richard	Catlin
Pugh, Daniel	St. John	Sowerby, Miles	Willisville
Pullen, R. H.	Sorento	Sparks, J. L.	Mt. Vernon
Pulver, R. H.	Centralia	Spaulding, Charles	Seatonville
		Spaulding, Henry	
Quick, A. T.	Sato	Strout, J. W.	Pontiac
Quick, A. S. H.		Stanfel, Martin	Toluca
Quigley, Henry	Hallidayboro	Stanford, J. W.	Pana
		Stedman, Edgar	Missionfield
		Stedman, Robert, Sr.	Danville
		Steel, E. H.	Salem
Raber, F. C.	Troy	Steinheimer, Theodore	Lenzburg
Raber, Louis	Collinsville	Stephen, C. H.	Spring Valley
Radford, William T.	Bloomington	Steward, L. A.	Mt. Vernon
Rafter, Michael	Marquette	Stewart, James C.	Carbon Hill
Randle, Caleb	Belleville	Stewart, Peter	Murphysboro
Randle, William	Freeburg	Stone, Frank	Lebanon
Rasor, J. D.	Staunton	Storm, Edwin	Worden
Reagan, William	Mt. Olive	Stout, F. M.	Springfield
Reatz, Hans	Lincoln	Stout, W. E.	Rutland
Reed, W. J.	Danville	Stowell, J. W.	Bloomington
Reetz, Herman	Lincoln	Streik, William	Belleville
Reid, Archibald	Springfield	Struse, Henry H.	Athens
Reilly, Henry	Toluca	Stuart, John	Ladd
Reimann, John	Belleville	Swartz, Fred	Toluca
Remelius, Jacob	O'Fallon		
Renni, Andrew	Dunfermline		
Rennie, James	Belleville	Taylor, Edwin	Trenton
Reppinger, H.	Chenoa	Taylor, Mack	Westville
Rhodes, Almon R.	Harrisburg	Temple, James C.	Springfield
Rice, C. L.	Murphysboro	Terry, W. F.	Litchfield
Rice, Moses	Staunton	Thexton, Henry	Rushville
Richards, John T.	Coal City	Thomas, Fred	Rutland
Richmond, John E.	Cantrall	Thompson, J. H.	Marion
Riley, B. J.	Colchester	Tibbals, E. A.	Pana
Rippitoe, J. G.	Trenton	Travis, Alonzo	Birkner
Ritchie, John	Litchfield	Travis, William	Carerville
Roberts, John	Willisville	Tregoning, Charles	Coal Valley
Roberts, Jonathan	Wenona	Twombly, Edward	
Robinson, Charles	Riverton		
Robinson, J. A.	Toluca		
Robinson, William A.	Peoria		
Rockey, Charles	Murphysboro		
Rodgers, Edward			
		Vandveer, Perry E.	Taylorville
		Vernon, James	LaSalle

Hoisting Engineers—Certificates of Competency—Concluded.

Name.	Postoffice.	Name.	Postoffice.
Waggoner, William F.....	Raymond.....	Williams, William H.....	Sherrard.....
Waldron, Thomas.....	Fredonia.....	Williamson, Henry.....	Coal City.....
Walker, John H.....	Mt. Olive.....	Williamson, William.....	.....
Walker, Joshua.....	.....	Wilson, David.....	Birkner.....
Wallford, Noah.....	Hillsboro.....	Wilson, William H.....	Middle Grove.....
Wallock, Charles.....	Braceville.....	Wohlers, Henry.....	Mt. Olive.....
Walsh, James D.....	Auburn.....	Woodward, J. R.....	Streator.....
Walton, A. F.....	LaSalle.....	Woolbright, D. A.....	Centralia.....
Walton, Joseph.....	St. David.....	Woodworth, Peter.....	Pekin.....
Wantling, T. J.....	Pottstown.....	Wright, William M.....	Pana.....
Wandless, W. S.....	Collinsville.....	.....	.....
Wassel, Anton.....	Braceville.....	Yates, John.....	DeSoto.....
Wattawa, Joseph.....	Belleville.....	Yates, William.....	Coal City.....
Watts, T. J.....	Elmwood.....	Yehling, Fred H.....	DuQuoin.....
West, W. H.....	Murphysboro.....	Young, J. K.....	Girard.....
Westwood, Albert.....	Belleville.....	Young, James G.....	Gardner.....
Westwood, Edward.....	Birkner.....	Young, Robert.....	LaSalle.....
White, Henry.....	Riverton.....	Young, A. O. K.....	Girard.....
White, Perry J.....	Springfield.....	Youngquist, Frank.....	Sherrard.....
White, Robert.....	Lincoln.....	.....	.....
Wickersham, J. R.....	Lake Creek.....	Zink, Louis.....	Belleville.....
Wilkin, W. P.....	Springfield.....	Zink, Peter A.....	Cable.....
Williams, Huston.....	Spaulding.....	Zuricker, Lorens.....	.....
Williams, John.....	Spring Valley.....	.....	.....
Williams, Thomas E.....	St. David.....	.....	.....

HOISTING ENGINEERS HOLDING CERTIFICATES OF SERVICE.

Name.	Postoffice.	Name.	Postoffice.
Ackerman, Jacob.....	Belleville.....	Davis, George W.....	Hanna City.....
Allen, William H.....	Collinsville.....	Davis, Thomas.....	Swanwick.....
Anthony, John C.....	Belleville.....	Davis, William H.....	Streator.....
.....	.....	Davison, J. G.....	St. John.....
Baiwair, John.....	Braidwood.....	Dawson, John.....	Streator.....
Banker, Henry.....	Ridge Prairie.....	Dawson, Thomas.....	.....
Bath, Ameston.....	Cuba.....	Dawson, V. C.....	Spring Valley.....
Beeby, William.....	Springfield.....	DeBacher, Thomas.....	Elmwood.....
Bell, George E.....	Canton.....	DeHass, B. L.....	Tallula.....
Benvenuto, Charles.....	Toluca.....	Dietrich, Philip.....	Freeburg.....
Birkley, N. T.....	Cuba.....	Dillon, John.....	Auburn.....
Blue, Jesse.....	Norris.....	Doe, R. P.....	Glen Carbon.....
Bonick, Andrew.....	Gilchrist.....	Dodd, Samuel.....	Pottstown.....
Bowman, George W.....	Yates City.....	.....	.....
Brown, G. A.....	Iles Junction.....	Ebel, August.....	Belleville.....
Brubeck, J. W.....	Pawnee.....	Edwards, George W.....	Springfield.....
Bumann, Albert.....	Springfield.....	Egerton, J. O.....	Colchester.....
.....	.....	Ekis, Daniel B.....	Springfield.....
Campbell, Albert.....	Pottstown.....	Essex, George M.....	Soperville.....
Campbell, James.....	Coal City.....	Evans, Albert.....	Glen Carbon.....
Carlson, Alexander.....	Galva.....	Everett, Charles.....	Rutland.....
Carrington, Eugene.....	Moweaqua.....	.....	.....
Carter, Albert J.....	Pinckneyville.....	Fischer, George.....	Staunton.....
Chitwood, William.....	Glenburn.....	Fisher, Patrick.....	Kangley.....
Clark, Charles M.....	DuQuoin.....	.....	.....
Cline, John.....	LaSalle.....	Gaudy, James W.....	Peoria.....
Collins, John.....	Birkner.....	Glasford, Oliver.....	Orchard Mines.....
Cook, W. D.....	Westville.....	Glenam, Philip.....	Williamsville.....
Cotton, George.....	Hallidayboro.....	Graham, J. A.....	Nilwood.....
Cox, John.....	Ledford.....	Graham, Reuben.....	Virden.....
Craig, Daniel.....	Danville.....	Grattendick, Fred.....	Okawville.....
Crawson, William.....	O'Fallon.....	Greaves, Allen.....	Nashville.....
Crinigan, Barney.....	LaSalle.....	Grey, David F.....	Springfield.....
Crocker, Edward.....	Marquette.....	Grierson, John.....	Streator.....
Cruickshanks, Wm. A.....	Middle Grove.....	Grimshaw, Joseph.....	LaSalle.....
Cumming, Robert H. L.....	Spariland.....	Groom, John.....	Belleville.....
.....
er, Thomas.....	Diamond.....	Haas, Jacob.....	Millstadt.....
ck, John.....	LaSalle.....	Hackett, Owen.....	Spaulding.....
port, Thomas.....	New Castle.....	.....	.....

Certificates of Service—Continued.

Name.	Postoffice.	Name.	Postoffice.
Hagler, Charles	Fredonia	Neilson, J. W.	Sparta
Hall, George R.	Nilwood	Nicholson, George A.	Cuba
Hanson, Wm.	O'Fallon	Noid, John E.	Galva
Harms, Heike	Petersburg		
Harris, J. T.	Tamaroa	Ogden, David	Rentchler
Hayes, John	Riverton	Ogden, Samuel	Mascoutah
Heaver, F.	Sandoval	Olson, Aug.	Kangley
Hickox, Lee	Springfield	Osborne, Benjamin	Streator
Howe, Charles	Streator	Ortinger, William	Catlin
Ichman, Frank	Spring Valley	Pankey, John M.	Equality
Isadore, Charles	Sparta	Peet, Charles	Marseilles
Isadore, George		Pendergast, James	Soperville
		Phillips, William	Hallidayboro
Jackson, William	Minonk	Pieton, Joseph	Farmington
Jacobs, John P.	Orchard Mines	Pieton, Thomas H.	
Jacobs, William	Murphysboro	Piper, Oliver	Worden
Jamison, John	Petersburg	Prichard, H. C.	Lewistown
Jeffrey, William	Gilchrist	Prichett, T. M.	Niantic
Johnson, Edgar W.	Marissa		
Jones, George W.	Riverton	Qualls, Nevel	Dubois
Jones, T. A.	Muncie	Quick, A. T.	Sato
Judd, Thomas	Cuba		
Karney, E.	Hallidayboro	Raber, Louis	Caseyville
Kelley, Martin	Toluca	Radford, James W.	Cuba
Kemper, Christian	Belleville	Radford, W. T.	Bloomington
Kennedy, W. J.	Edwardsville	Rahaur, Michael	Pawnee
King, Alexander, Jr.	Carterville	Redyard, John	Odin
King, John		Reese, William M.	Roanoke
Kirby, Thos., Jr.	Peru	Reid, A. B., Jr.	DuQuoin
Klaug, John	Galva	Rennard, James E.	Westville
Klaus, Louis	Belleville	Reum, Charles H.	Sorento
		Rice, B. F.	Harrisburg
Langran, James	Fairbury	Richmond, Edward B.	Winchester
Larson, Charles L.	Galva	Rieger, John C.	Pinckneyville
Lathan, William H.	Hallidayboro	Riley, Michael	Westville
Lewes, Jacob H.	Pottstown	Roach, Samuel	Tamaroa
Lewis, William	Wanlock	Rogers, George	Sunfield
Lippert, Adolph	Kewanee	Rogers, Henry	Braidwood
Lloyd, Benjamin	Rentchler	Rude, Edmond	DeSoto
Love, William	Virden		
Lundberg, Eric	Galva	Sallade, George A.	Chatham
		Sanson, T. J.	Carterville
McCalster, Thomas	Muddy Valley	Sawers, Joseph	Coal City
McDonald, William H.	Pana	Schmacher, Charles	Marissa
McLean, John	Pleasant Plains	Schramm, Charles	Belleville
McMillen, W. M.	Danville	Seebach, Joseph	Spring Valley
McWerthy, G. A.	Smithboro	Sexton, LaFayette	Dawson
		Seymour, A. J.	Fredonia
Marshall, Robert	Yates City	Sheppard, W. C.	Marquette
Mathaws, George	DuQuoin	Shurm, Fred	Gardner
Mattern, Daniel	Spring Valley	Smith, George W.	Virginia
Matthews, C.	Marion	Sorrels, D. H.	Ashland
Matthews, William G.	Bartonville	Sowarby, Miles	Willisville
Maurer, Edward	Spring Valley	Stoker, Edward	Bartonville
Maxwell, Fred	Peoria	Strick, William	Belleville
Melvin, T. M.	Tamaroa	Stroud, William	Worden
Milem, John	Spring Valley	Struck, Carl	Springfield
Miller, William	Streator	Stuart, John	Oglesby
Morrison, Archie	Oglesby		
Mumford, E. A.	Kewanee	Tanner, Henry	Pinckneyville
Murray, James H.	Galva	Taylor, Benjamin	Bartonville
		Taylor, Willard W.	Tamaroa
Neal, Ambrose	Barclay	Tefft, Ernst	Girard
Neil, John H.	Bunker Hill	Telfer, John K.	Morris
		Thome, Martin	Martinville

Hoisting Engineers—Certificates of Service—Concluded.

Name.	Postoffice.	Name.	Postoffice.
Wallace, Harry G.....	East Peoria.....	Willis, Harry.....	New Castle.....
Warner, Andrew M.....	Wenona.....	Wood, Daniel A.....	Colfax.....
Waymire, James.....	Assumption.....	Woolbright, D. A.....	Centralia.....
Wertwood, Edward.....	Birkner.....	Wonnes, Joseph.....	Birkner.....
Wheatley, Rolley.....	DuQuoin.....	Wormack, Charles A.....	Glen Carbon.....
White, Henry.....	Riverton.....		
Williams, Husten.....	Spaulding.....	Zeigler, John.....	Iles Junction.....
Williams, Stephen P.....	Wyoming.....		
Williams, Watson.....	Barclay.....		

FIRE BOSSES HOLDING CERTIFICATES OF COMPTENCY.

NOTE.—This and the following list include all the fire bosses to whom certificates were issued prior to January 1, 1899. The postoffice addresses here given are those recorded at the time the certificates were issued and in many cases are not the present addresses of the certificate holders.

Name.	Postoffice.	Name.	Postoffice.
Andrew, Thomas	Oglesby	James, Johann	Grape Creek
Argyle, Joseph	Coal City	Jenkins, T. C.	Murphysboro
Barlow, Harry	Lake Creek	Jennings, William	Athens
Bell, William	Streator	Jeten, T. F.	Roanoke
Bluefield, Charles	Coal City	Jones, Benjamin J.	Coffeen
Bowen, Gwilym	Herrins	Jones, Morgan	Litchfield
Bullough, James	Girard	Johnson, David	Oglesby
Bundy, John	Streator	Johnston, Samuel	Streator
		Jordon, Robert	
Campbell, James	Assumption	Kloeever, Matthew	Pana
Cappin, Aaron	Wenona		
Castillo, Henry	Pana	Lawson, Thomas	Lake Creek
Chadderton, John	Lenz Station	Lettsom, William	Seneca
Champley, James	Wenona	Lumaghi, Louis F.	Collinsville
Craine, J. E., Jr.	Murphysboro	Lyons, Mark	Lincoln
Cunningham, David	Carlinville		
Damrath, Frederick	Virden	McCranor, James	Girard
Davis, William	Streator	McCrindle, David	Oglesby
Dodge, H. N.	East Peoria	McDonald, William	Braidwood
Dooner, P. J.	Westville	McEwen, Charles	Carbon Hill
		McKillop, Donald	
Edmunds, Morgan	Mt. Olive	Maggo, Jacob	Danville
English, Thomas	Streator	Massie, J. G.	Belleville
		Middleton, J. L.	Salem
Farrand, Walter	Barclay	Miller, Alexander	Ridge Prairie
		Morgan, Joseph	Streator
Galbraith, Patrick	Coal City	Morris, John H.	Wenona
Galvin, Martin	Assumption	Moss, Thomas	Staunton
Gloss, Michael	Gardner	Muentrich, J.	
Goehe, William	Staunton	Muir, Andrew	Springfield
Grabsuck, Emile		Murphy, John	Braidwood
Graham, L. A.	Bloomington		
Gray, Henry	Athens	Nichols, Eli W.	Dunfermline
		Nixon, Robert	Streator
Haddow, Thomas	Pana	Nordner, C. K.	Athens
Hardman, J. J.	Auburn		
Harrison, James	Athens	Opp, Sherman W.	Sandoval
Harrison, John	Odin		
Haun, George	Litchfield	Payne, Emanuel	Litchfield
Henley, J. H.	Odin	Peart, John	Braidwood
Holden, Andrew	Coal City	Phillips, Benjamin	Kangley
Hopkins, Reese	Litchfield	Pick, Edward	Central City
Howells, George	Staunton	Prince, Thomas	Mt. Olive
Hoye, William	Braidwood	Prudent, Edward	Centralia

Fire Bosses—Certificates of Competency—Concluded.

Name.	Postoffice.	Name.	Postoffice.
Quinn, Bernard.....	Bloomington.....	Spies, Alfred.....	Braceville.....
Raab, Rudolph.....	Carlinville.....	Steel, Daniel.....	Collinsville.....
Rae, Robert.....	Carbon Hill.....	Steel, Neal.....	Centralia.....
Reinnison, Henry.....	St. Johns.....	Stearns, James.....	Hallidayboro.....
Reynolds, John.....	Streator.....	Stonburner, L. L.....	Sorento.....
Rhodes, D. R.....	Pana.....	Thom, John.....	Coal City.....
Rhodes, J. L.....	Westville.....	Thomas, John R.....	Spring Valley....
Ritson, Hugh.....	Farmington.....	Vit, Charles.....	Litchfield.....
Ryder, James H.....	Pontiac.....	Whitcamper, Louis.....	Lincoln.....
Schmid, Conrad.....	Lincoln.....	Williams, William E.....	Streator.....
Secor, T. D.....	Odin.....	Wilson, Henry.....	Pana.....
Siddell, James.....	Streator.....	Winterbottom, John.....	Sparta.....
Smith, George A.....	Sandoval.....		
Smith, Henry.....	Smithboro.....		
Smith, James.....	Streator.....		

FIRE BOSSES HOLDING CERTIFICATES OF SERVICE.

Name.	Postoffice.	Name.	Postoffice.
Arnold, Stephen.....	Kangley.....	Kortkamp, Carl.....	Hillsboro.....
Bagshaw, George W.....	Viriden.....	Kortkamp, Lewis.....	.....
Blakemore, George.....	Streator.....	Lewis, Edward.....	Ladd.....
Borg, Frank.....	Mt. Olive.....	McDonald, M. E.....	LaSalle.....
Boulton, Henry.....	Coal City.....	Moffet, Edward A.....	Bartonville.....
Bough, William.....	Dawson.....	Montgomery, John H.....	Gardner.....
Brooks, Peter.....	Taylorville.....	Mooney, Arthur.....	Kangley.....
Brown, John.....	Streator.....	Ross, S. H.....	Girard.....
Caveny, Edward.....	Pana.....	Schmidt, Ernest.....	Mt. Olive.....
Franzen, Mat.....	Girard.....	Schultz, John.....	Diamond.....
Gray, William.....	Streator.....	Shaw, Francis M.....	Hallidayboro.....
Griffin, John.....	Niantic.....	Shopman, John.....	Mt. Olive.....
Hall, John Herbert.....	Minonk.....	Siebenhauer, Wm.....	LaSalle.....
Hoesfield, Aaron.....	Oglesby.....	Solufskie, Hermann.....	Decatur.....
Hornanor, Paul.....	Lincoln.....	Stewart, Samuel.....	Coal City.....
Hughes, John.....	Decatur.....	Taylor, Samuel.....	O'Fallon.....
Humphreys, William.....	Clark City.....	Thomas, David.....	Canton.....
Jenkins, Rutland.....	LaSalle.....	Wilson, Archie.....	Clark City.....
Kneper, David.....	Girard.....	Wilson, John.....	Gardner.....
Kopps, August.....	.....	Wood, Henry.....	Streator.....

FIRST DISTRICT.

Statement of the Reports of the State Inspectors of Mines of the Inspection of Mines, the Amount of Fees Charged and Paid for the Year Ending July 1, 1898.

Date of Inspection.	Name of Firm, Company or Person Operating Mine.	Location of Mine.	Number of men employed.	Inspection fee charged.	Inspection fee paid.
Oct. 12, 1897	Acme Coal Co.	Streator	145	\$10 00	
Jan. 8, 1898	"	"	179	10 00	
April 11, 1898	"	"	98	8 00	
Jan. 3, 1898	Darrackman, A. M.	"	12	6 00	
Feb. 11, 1898	Bell, James	Morris	6	6 00	
Dec. 30, 1897	Braceville Coal Co. No. 4.	Braceville	582	10 00	\$30 00
Mar. 7, 1898	"	"	591	10 00	
May 24, 1898	"	"	570	10 00	
June 9, 1898	"	"	F A	10 00	
Sept. 21, 1897	Burrell, Wm.	Streator	12	6 00	
Oct. 6, 1897	Burrell & Reese	"	14	6 00	
Jan. 11, 1898	"	"	14	6 00	
April 14, 1898	"	"	9	6 00	
Nov. 9, 1897	Cahill, James	Peru	200	10 00	40 00
Jan. 21, 1898	"	"	200	10 00	
Mar. 12, 1898	"	"	F A	10 00	
April 15, 1898	"	"	160	10 00	
June 10, 1898	"	"	F A	10 00	
Nov. 11, 1897	Cain & Sons, Jas.	Deer Park	6	6 00	
Sept. 23, 1897	Caswell, John	Streator	7	6 00	
Oct. 8, 1897	"	"	8	6 00	
Dec. 27, 1897	C., W. & V. Coal Co. Old Colony Bldg., No. 1.	Chicago			78 00
Feb. 24, 1898	"	Heenanville	190	10 00	
May 16, 1898	"	"	330	10 00	
June 3, 1898	"	"	432	10 00	
July 9, 1897	"	"	F A	10 00	
Dec. 24, 1897	"	No. 2	250	10 00	
Feb. 23, 1898	"	Streator	250	10 00	
May 13-14, '98	"	"	400	10 00	
Dec. 29, 1897	"	"	496	10 00	
Mar. 9, 1898	"	R. mine	250	10 00	
May 18, 1898	"	Braidwood	270	10 00	
June 14, 1898	"	"	F A	10 00	
Oct. 26, 1897	Coöperative Coal Co.	"	350	10 00	
Jan. 14, 1898	"	"	30	6 00	24 00
April 13, 1898	"	"	30	6 00	
Aug. 6, 1897	Coöperative Coal Co.	Fairbury	24	6 00	
Nov. 15, 1897	"	"	16	6 00	30 00
Feb. 1, 1898	"	"	11	6 00	
May 9, 1898	"	"	16	6 00	
Oct. 26, 1897	Crichton, Robt.	"	17	6 00	
Aug. 10, 1897	Diamond Coöperative Coal Co.	Braidwood	6	6 00	
Aug. 30, 1897	"	Pontiac	6	6 00	
Feb. 2, 1898	"	"	9	6 00	
	"	"	6	6 00	

*These initials indicate inspection on account of fatal accident.

First District, Statement—Continued.

Date of Inspection.	Name of Firm, Company or Person Operating Mine.	Location of Mine.	Number of men employed.	Inspection fee charged.	Inspection fee paid.
April 27, 1898	Diamond Coöperative Coal Co.....	Pontiac	7	\$6 00	.....
Nov. 20, 1897	Durham, Wm.....	Streator	6	6 00	.....
Sept. 20, 1897	Edwards, Thos.....	"	12	6 00	\$24 00
Oct. 7, 1897	"	"	14	6 00	.....
Jan. 19, 1898	"	"	11	6 00	.....
April 25, 1898	"	"	7	6 00	.....
Aug. 24, 1897	Espley & Co., J. T.....	Morris	8	6 00	.....
Nov. 3, 1897	"	"	19	6 00	.....
Feb. 11, 1898	"	"	12	6 00	.....
May 17, 1898	"	"	7	6 00	.....
Jan. 19, 1898	Evans, Jr. & Bro., R.....	Streator	18	6 00	.....
April 20, 1898	"	"	9	6 00	.....
Jan. 12, 1898	Gardner & Wilmington Coal Co.....	Gardner	58	6 00	.....
April 18, 1898	"	"	55	8 00	.....
July 6, 1897	"	Clark City	200	10 00	.....
April 21, 1898	"	"	200	10 00	.....
Aug. 25, 1897	Gilbride, Frank	Morris	8	6 00	.....
Nov. 2, 1897	"	"	9	6 00	.....
Feb. 10, 1898	"	"	13	6 00	.....
May 17, 1898	"	"	6	6 00	.....
Jan. 10, 1898	Hakes, Emerson	Rutland	125	10 00	.....
April 8, 1898	"	"	160	10 00	.....
Nov. 3, 1897	Heather & Co., Chas.....	Morris	6	6 00	.....
Feb. 26, 1898	Helffrick, John	Ottawa	6	6 00	.....
Oct. 11, 1897	Howe Coal Co., Wm.....	Streator	50	6 00	.....
Jan. 18, 1898	"	"	65	6 00	.....
April 9, 1898	"	"	45	6 00	.....
Sept. 6, 1897	Kelly & O'Connor.....	Braidwood .....	.....	.....	6 00
Oct. 8, 1897	Kilburn, Jas.....	Streator	16	6 00	.....
Jan. 20, 1898	"	"	16	6 00	.....
May 10, 1898	"	"	13	6 00	.....
Sept. 20, 1897	Kimes Sylvester.....	"	12	6 00	.....
Oct. 8, 1897	"	"	14	6 00	.....
Sept. 20, 1897	Kimes, Oscar.....	"	15	6 00	.....
Oct. 7, 1897	"	"	17	6 00	.....
Jan. 19, 1898	"	"	16	6 00	.....
Aug. 25, 1897	Laherty & Bro., Wm.....	Morris	9	6 00	.....
Nov. 2, 1897	"	"	13	6 00	.....
Feb. 10, 1898	"	"	12	6 00	.....
May 17, 1898	"	"	10	6 00	.....
Dec. 1, 1897	LaSalle Co. Carbon Coal Co. LaSalle—	LaSalle	300	10 00	.....
Feb. 4, 1898	Union Mine.....	"	294	10 00	.....
April 26, 1898	"	"	215	10 00	.....
Dec. 2, 1897	LaSalle Mine.....	"	250	10 00	.....
Mar. 28, 1898	"	"	230	10 00	.....
June 10, 1898	"	"	248	10 00	.....
Dec. 4, 1897	Rockwell Mine.....	"	160	10 00	.....
Feb. 5, 1898	"	"	196	10 00	.....
April 29, 1898	"	"	116	8 00	.....
Dec. 7, 1897	Jones Mine.....	Jones' Station	230	10 00	.....
Feb. 18, 1898	"	"	275	10 00	.....
May 6, 1898	"	"	271	10 00	.....
Oct. 15, 1897	Love & Sons.....	Wilsman	6	6 00	.....
Feb. 6, 1898	"	"	6	6 00	.....
Oct. 26, 1897	Maltby, Wm.....	Braidwood	96	8 00	.....
Jan. 14, 1898	"	"	72	8 00	.....
April 13, 1898	"	"	44	6 00	.....
Aug. 18, 1897	Marseilles L. & W. P. Co.....	Marseilles	14	6 00	18 00
Nov. 23, 1897	"	"	30	6 00	.....
Mar. 24, 1898	"	"	44	6 00	.....
June 21, 1898	"	"	30	6 00	.....
Aug. 13, 1897	Matthesien & Hegler Zinc Co.....	LaSalle	70	8 00	56 00
Nov. 10, 1897	"	"	73	8 00	.....
Jan. 22, 1898	"	"	63	8 00	.....
April 16, 1898	"	"	64	8 00	.....
Feb. 26, 1898	Nelson & Son.....	Ottawa	6	6 00	.....
Oct. 6, 1897	Nelson & Westerbund	Streator	7	6 00	.....
Jan. 11, 1898	"	"	9	6 00	.....
April 14, 1898	"	"	6	6 00	.....
Dec. 9, 1897	Oglesby Coal Co.....	Oglesby	230	10 00	50 00

First District, Statement.—Continued.

Year.	Name of Firm, Company or Person Operating Mine.	Location of Mine.	Number of men employed.	Inspection fee charged.	Inspection fee paid.
1898	Oglesby Coal Co.	Oglesby	310	\$10 00	
1898			240	10 00	
1897	Otter Creek Coal Co.	Streator	90	8 00	
1898	"	"	119	10 00	
1898	"	"	85	8 00	
1897	Piny Coal Co.	"	7	6 00	
1897	Pontiac Coal Co.	Pontiac	73	8 00	
1898	"	"	70	8 00	
1898	"	"	130	8 00	
1897	Price & Jones	Streator	7	6 00	
1898	"	"	7	6 00	
1897	Schultz, Fred.	Braceville	6	6 00	
1897	"	"	6	6 00	
1898	"	"	6	6 00	
1898	"	"	6	6 00	
1897	Scott Chas.	Kangley	6	6 00	\$18 00
1897	Singer & Sons, H.	Cornell	6	6 00	12 00
1897	Sowerby Bros.	Streator	6	6 00	
1898	"	"	6	6 00	
1897	Standard Coal Co.	Seneca	27	6 00	
1897	"	"	75	8 00	
1898	"	"	45	6 00	
1898	"	"	18	6 00	
1897	Star Coal Co., Streator—				
1897	" No. 2 Mine.	Kangley	325	10 00	
1897	" No. 2 Mine.	"	140	10 00	
1898	" No. 2 mine.	"	243	10 00	
1898	" No. 2 mine.	"	190	10 00	
1897	" No. 1 mine.	Spring Hill	60	6 00	
1898	" No. 1 mine.	"	76	8 00	
1898	" No. 1 mine.	"	121	8 00	
1897	" No. 3 mine.	Carbon Hill	210	10 00	
1898	" No. 3 mine.	"	261	10 00	
1898	" No. 3 mine.	"	217	10 00	
1897	" No. 2 mine.	"	300	10 00	
1898	" No. 2 mine.	"	414	10 00	
1898	" No. 2 mine.	"	445	10 00	
1897	Scott & Son, Thos.	Morris	6	6 00	
1898	"	"	6	6 00	
1898	"	"	6	6 00	
1897	Streator Clay Mfg. Co.	Streator	21	6 00	
1897	"	"	21	6 00	
1898	"	"	19	6 00	
1897	Swarthout & Co. R. V.	"	13	6 00	
1897	"	"	18	6 00	
1898	"	"	18	6 00	
1897	Telfer & Son, A. W.	Morris	7	6 00	
1897	"	"	9	6 00	
1898	"	"	10	6 00	
1898	"	"	8	6 00	
1897	Thomas & Co, Wm.	Streator	24	6 00	
1898	"	"	8	6 00	
1897	Thorne, D. W.	"	8	6 00	24 00
1898	"	"	6	6 00	
1898	Treasure, Wm.	Essex	11	6 00	12 00
1898	"	"	6	6 00	
1897	U. S. Silica Co.	W. Ottawa	7	6 00	6 00
1897	Walton Bros.	Fairbury	38	6 00	
1897	"	"	13	6 00	
1897	"	"	36	6 00	
1898	"	"	45	6 00	
1898	"	"	33	6 00	
1897	Wh'tbr'st F. Co., 936 Rookery, Chicago				
18-8	Clark City mine.	Clarke City	200	10 00	
1897	Wilmington Big Four Co., No. 2	Coal City	250	10 00	
1898	" No. 2	"	406	10 00	
1898	" No. 2	"	536	10 00	
1898	" No. 2	"	F A	10 00	
1898	" No. 2	"	457	10 00	

First District, Statement.—Continued.

Date of Inspection.	Name of Firm, Company or Person Operating Mine.	Location of Mine.	Number of men employed.	Inspection fee charged.	Inspection fee paid.
Dec. 14, 1897	Wilmington Coal M. & Mfg. Co., No. 4	Diamond	460	\$10 00	.....\$40 00
Mar. 14, 1898	.. No. 4	.. .....	567	10 00	.....
May 26, 1898	.. No. 4	.. .....	465	10 00	.....
June 2, 1898	.. No. 4	.. .....	FA	10 00	.....
Dec. 13, 1897	Wilmington Star Mining Co., No. 5...	Coal City	90	8 00	.....
Mar. 11, 1898	.. No. 5...	.. .....	75	6 00	.....
June 16, 1898	.. No. 5...	.. .....	93	8 00	.....
Dec. 21, 1897	.. No. 3...	.. .....	60	6 00	.....
Mar. 11, 1898	.. No. 3...	.. .....	30	6 00	.....
Aug. 24, 1897	Wood, Wm	Morris	8	6 00	.....
Nov. 3, 1897	.. .....	.. .....	9	6 00	.....
Feb. 11, 1898	.. .....	.. .....	13	6 00	.....
Total .....			...	\$1,438 00	\$468 00

SECOND DISTRICT.

July 14, 1897	Alden Coal Co.	Wanlock	125	\$8 00	\$46 00
Nov. 16, 1897	.. ..	.. ..	130	8 00	.....
Feb. 10, 1898	.. ..	.. ..	165	10 00	.....
April 25, 1898	.. ..	.. ..	145	8 00	.....
Oct. 27, 1897	Allison & Jamison ..	Loding	12	6 00	6 00
Oct. 5, 1897	Ball Coal Co.	Bartonville	9	6 00	18 00
May 14, 1898	.. ..	.. ..	11	6 00	.....
Oct. 5, 1897	Bartonville Coal Co. ....	.. ..	16	6 00	.....
Feb. 1, 1898	.. ..	.. ..	15	6 00	.....
May 28, 1898	.. ..	.. ..	16	6 00	.....
Nov. 23, 1897	Bates Bros	Kewanee	10	6 00	.....
Jan. 7, 1898	Black Diamond Coal Co.	Coal Valley	6	6 00	.....
Mar. 12, 1898	Blossomburg Coal Co. ....	.. ..	...	...	6 00
Nov. 9, 1897	Camp Creek Coal Co.	Cable	35	6 00	.....
Mar. 1, 1898	.. ..	.. ..	40	6 00	.....
April 28, 1898	.. ..	.. ..	20	6 00	.....
C. W. & V. Coal Co., Old Colony Bldg. Chicago—					
Dec. 21, 1897	Seatonville mine	Seatonville	350	10 00	30 00
Mar. 29, 1898	.. ..	.. ..	285	10 00	.....
June 17, 1898	.. ..	.. ..	275	10 00	.....
Oct. 19, 1897	Chicago & Minonk C. & T. Co.	Minonk	250	10 00	.....
Nov. 29, 1897	.. ..	.. ..	225	10 00	.....
Feb. 15, 1898	.. ..	.. ..	270	10 00	.....
April 8, 1898	.. ..	.. ..	240	10 00	.....
Nov. 9, 1897	Coal Valley Coal Co. No. 1	Cable	160	10 00	80 00
Mar. 1, 1898	.. No. 1 ..	.. ..	140	8 00	.....
April 28, 1898	.. No. 1 ..	.. ..	125	8 00	.....
Nov. 10, 1897	.. No. 2 ..	Sherrard	152	10 00	.....
Mar. 2, 1898	.. No. 2 ..	.. ..	200	10 00	.....
June 28, 1898	.. No. 2 ..	.. ..	160	10 00	.....
Oct. 6, 1897	Collier Corp. Coal Co.	Bartonville	26	6 00	30 00
Jan. 20, 1898	.. ..	.. ..	30	6 00	.....
May 18, 1898	.. ..	.. ..	30	6 00	.....
Oct. 11, 1897	Cusack, M.	Kramm Station	14	6 00	.....
Nov. 2, 1897	Devlin Coal Co.	Toluca	550	10 00	58 00
Feb. 22, 1898	.. ..	.. ..	500	10 00	.....
June 1, 1898	.. ..	.. ..	475	10 00	.....
July 19, 1897	Elmwood Coal Co.	Elmwood	125	8 00	40 00
Nov. 18, 1897	.. ..	.. ..	140	8 00	.....
Jan. 17, 1898	.. ..	.. ..	145	8 00	.....
April 30, 1898	.. ..	.. ..	140	8 00	.....
July 15, 1897	Empire Coal Co.	Gilchrist	160	10 00	68 00
Nov. 17, 1897	.. ..	.. ..	130	8 00	.....
Feb. 9, 1898	.. ..	.. ..	125	8 00	.....
April 26, 1898	.. ..	.. ..	135	8 00	.....
Nov. 26, 1897	Fairlie, James	Cambridge	14	6 00	18 00
April 4, 1898	.. ..	.. ..	7	6 00	.....

Second District, Statement—Continued.

Date of Inspection.	Name of Firm, Company or Person Operating Mine.	Location of Mine.	Number of men employed.	Inspection fee charged.	Inspection fee paid.
Sept. 21, 1897	Foley, W. E.	Mapleton	20	\$6 00	
Dec. 3, 1897	..	..	30	6 00	
Mar. 17, 1898	..	..	15	6 00	
June 3, 1897	..	..	3	6 00	
Oct. 14, 1897	German Coop. Coal Co.	Orchard Mines	12	6 00	
Feb. 4, 1898	..	..	20	6 00	
May 20, 1898	..	..	20	6 00	
Oct. 12, 1897	Grant, Peter	Peoria	32	6 00	
Feb. 5, 1898	..	..	22	6 00	
May 6, 1898	..	..	22	6 00	
Nov. 22, 1897	Henry, Philip	Kewanee	20	6 00	
May 11, 1898	..	..	9	6 00	
July 17, 1897	Herdien Coal Co. No. 14	Galva	45	6 00	
Nov. 24, 1897	.. No. 14	..	70	8 00	
Mar. 25, 1898	.. No. 14	..	48	6 00	
May 25, 1898	.. No. 14	..	35	6 00	
Aug. 30, 1897	.. No. 12	..	15	6 00	
Dec. 23, 1897	.. No. 12	..	25	6 00	
Mar. 26, 1898	.. No. 12	..	14	6 00	
Oct. 4, 1897	Higbee, James	Wyoming	7	6 00	
Oct. 4, 1897	Higbee, A. W.	..	8	6 00	
May 17, 1898	Hill & Kreeger	Orchard Mines	6	6 00	
Sept. 23, 1897	Howarth & Taylor	Edwards	35	6 00	\$36 00
Dec. 9, 1897	..	..	45	6 00	
Oct. 27, 1897	Hynd, John	Loding	20	6 00	12 00
Oct. 27, 1897	Jamieson Coal Co.	..	16	6 00	12 00
Mar. 18, 1898	Jefford Bros	Kingston	9	6 00	
Mar. 5, 1898	Kay, James	Atkinson	..	..	6 00
Sept. 29, 1897	Kewanee Coal Co. No. 2	Kewanee	45	6 00	94 00
Dec. 24, 1897	.. No. 2	..	80	8 00	
Mar. 4, 1898	.. No. 2	..	110	8 00	
May 23, 1898	.. No. 2	..	115	8 00	
Oct. 16, 1897	.. No. 1	..	75	8 00	
Feb. 17, 1898	.. No. 1	..	38	6 00	
Feb. 1, 1898	Kellar & Son	Bartonville	13	6 00	
Nov. 22, 1897	Kirley, Bernard	Kewanee	18	6 00	
May 11, 1898	..	..	10	6 00	
Sept. 23, 1897	Kramm & Bro., C. B.	Edwards	6	6 00	
Dec. 9, 1897	..	..	20	6 00	
Oct. 27, 1897	Loding Bros	Loding	7	6 00	
Mar. 10, 1898	Lyle, W. H.	Kewanee	..	..	6 00
Aug. 12, 1897	Marquette Coal Co	Sparland	28	6 00	
Dec. 27, 1897	..	..	80	8 00	
April 12, 1898	..	..	35	6 00	
Nov. 5, 1897	..	Marquette	500	10 00	
Feb. 25, 1898	..	..	275	10 00	
April 12, 1898	..	..	200	10 00	
Mar. 7, 1898	Martin Bros	Kewanee	..	..	6 00
Mar. 1, 1898	Mowbray, John	Atkinson	..	..	6 00
Aug. 30, 1898	Murray, J. H.	Galva	18	6 00	36 00
Dec. 18, 1897	..	..	20	6 00	
Mar. 25, 1898	..	..	15	6 00	
April 29, 1898	McCaffrey, John	Blossomburg	56	8 00	
Dec. 29, 1897	McKane & Walker	Galva	10	6 00	6 00
Sept. 22, 1897	Newsam Bros., Peoria—	..	..	..	..
Dec. 24, 1897	Kingston Mine	Peoria	90	8 00	
Mar. 18, 1898	..	..	95	8 00	
Oct. 25, 1897	Hanna City	Hanna City	100	8 00	
April 21, 1898	..	..	30	6 00	
May 5, 1897	..	..	30	6 00	
Oct. 25, 1897	Star Mine	Peoria	30	6 00	
Feb. 5, 1898	..	..	40	6 00	
April 21, 1898	..	..	66	8 00	
Dec. 1, 1897	Pryce, J. J.	..	48	6 00	
Sept. 21, 1897	Reid City Coal and Mining Co.	Coal Valley	30	6 00	
Dec. 3, 1897	..	Peoria	60	8 00	
Mar. 17, 1898	..	..	95	8 00	
June 3, 1898	..	..	65	8 00	
Oct. 20, 1897	Roanoke Mining Co.	Roanoke	60	8 00	
Feb. 17, 1898	..	..	175	10 00	40 00
June 11, 1898	..	..	230	10 00	
	..	..	160	10 00	

Second District, Statement—Concluded.

Date of Inspection.	Name of Firm, Company or Person Operating Mine.	Location of Mine.	Number of men employed.	Inspection fee charged.	Inspection fee paid.
Oct. 12, 1897	Royster & Zeigler	Peoria	22	\$6 00	
Feb. 12, 1898	"	"	20	6 00	
May 6, 1898	"	"	18	6 00	
Sept. 24, 1897	Schmidt & Son, F. P.	"	14	6 00	
Jan. 18, 1898	"	"	16	6 00	
May 2, 1898	"	"	7	6 00	
Oct. 26, 1897	Silvis & Silvis	Carbon Cliff	10	6 00	\$6 00
Oct. 11, 1897	Shaw, Nathan	Kramin Station	15	6 00	
Dec. 8, 1897	Sheffield Mining Co.	Sheffield	38	6 00	24 00
Oct. 5, 1897	Sholl Bros. No. 3	Peoria	60	8 00	
Feb. 1, 1898	" No. 3	"	65	8 00	
Mar. 15, 1898	" No. 3	"	60	8 00	
June 6, 1898	" No. 3	"	55	8 00	
Oct. 14, 1897	" No. 1	"	45	6 00	
Feb. 4, 1898	" No. 1	"	45	6 00	
Mar. 15, 1898	" No. 1	"	45	6 00	
May 20, 1898	" No. 1	"	40	6 00	
Oct. 7, 1897	Sholl & Son, Jos.	"	9	6 00	
Mar. 5, 1898	Smith & Son, Wm.	Princeton			12 00
Oct. 29, 1897	Snedden & Son, A.	Orchard Mines	9	6 00	
Feb. 23, 1898	"	"	10	6 00	
Mar. 22, 1898	Sprague, Clara	Sheffield			6 00
Dec. 15, 1897	Spring Valley Coal Co. No. 1	Spring Valley	550	10 00	
Mar. 9, 1898	" No. 1	"	600	10 00	
May 13, 1898	" No. 1	"	500	10 00	
June 24, 1898	" No. 1	"	600	10 00	
Mar. 8, 1898	" No. 2	"	550	10 00	
June 25, 1898	" No. 2	"	60	8 00	
Dec. 16, 1897	" No. 3	"	500	10 00	
Mar. 23, 1898	" No. 3	"	450	10 00	
June 23, 1898	" No. 3	"	508	10 00	
Mar. 10, 1898	Taylor, Robt.	Princeville			6 00
Oct. 22, 1897	Vicary Bros.	Peoria	40	6 00	
May 2, 1898	"	"	12	6 00	
Nov. 17, 1897	Wantling & Son, I.	Pottstown	55	8 00	
Jan. 10, 1898	"	"	65	8 00	
April 13, 1898	"	"	75	8 00	
July 12, 1897	"	"	80	8 00	
Dec. 13, 1897	Wenona Coal Co.	Wenona	140	8 00	60 00
Feb. 15, 1898	"	"	160	10 00	
Mar. 31, 1898	"	"	155	10 00	
Dec. 2, 1897	Whitebreast Fuel Co. B	Ladd	250	10 00	
Mar. 22, 1898	" B	"	300	10 00	
June 18, 1898	" B	"	360	10 00	
Mar. 14, 1898	Wilkinson & Summerson	Coal Valley			18 00
Dec. 1, 1897	Wilkinson & Tonkin	"	20	6 00	6 00
Dec. 7, 1897	Williamson, Z. E.	Sheffield	18	6 00	
Sept. 24, 1897	Wolland & Bro., E.	Bartonville	8	6 00	18 00
Jan. 18, 1898	"	"	8	6 00	
Oct. 7, 1897	Wolschlag's Coop. Coal Co.	Peoria	40	6 00	
Jan. 20, 1898	"	"	45	6 00	
May 18, 1898	"	"	45	6 00	
Total.....				\$1, 174 00	\$816 00

THIRD DISTRICT.

July 23, 1897	Anderson, N.	Wataga	12	\$6 00	
Nov 23, 1897	"	"	10	6 00	
July 14, 1897	Astoria Coal M. Co.	Astoria	61	8 00	
Oct. 14, 1897	"	"	70	8 00	
Jan. 24, 1898	"	"	75	8 00	
April 13, 1898	"	"	65	8 00	
Nov. 23, 1897	Langston Bros.	Wataga	8	6 00	
Mar. 8, 1898	"	"	8	6 00	
Nov. 3, 1897	Bartlett & Bradley	Cuba	6	6 00	
Feb. 8, 1898	"	"	6	6 00	

Third District, Statement—Continued.

Date of Inspection.	Name of Firm, Company or Person Operating Mine.	Location of Mine.	Number of men employed.	Inspection fee charged.	Inspection fee paid.
Mar. 18, 1896	Bath, Jacob	Cuba .....	.....	.....	\$6 00
Sept. 8, 1897	Bath, Abraham	St David .....	.....	.....	6 00
Aug. 9, 1897	Berry, John	Maccomb	6	\$6 00	.....
Oct. 20, 1897	"	"	6	6 00	.....
Feb. 3, 1898	"	"	6	6 00	.....
Dec. 6, 1897	Bowman Bros.	Yates City	6	6 00	.....
Dec. 7, 1897	Brown & Ellinger	Elmwood	6	6 00	.....
Sept. 2, 1897	Bryner Bros.	Roseville	8	6 00	.....
Nov. 10, 1897	"	"	6	6 00	.....
Feb. 16, 1898	"	"	7	6 00	.....
Sept. 2, 1897	Caldwell, Thos.	Avon	8	6 00	.....
Nov. 22, 1897	"	"	8	6 00	.....
Feb. 4, 1898	"	"	6	6 00	.....
July 15, 1897	Canton Coal Co.	Canton	22	6 00	.....
Oct. 4, 1897	"	"	21	6 00	.....
Jan. 8, 1898	"	"	24	6 00	.....
April 25, 1898	"	"	23	6 00	.....
July 7, 1897	Canton Union Coal Co.	"	13	6 00	.....
Oct. 5, 1897	"	"	35	6 00	.....
Jan. 26, 1898	"	"	47	6 00	.....
April 29, 1898	"	"	25	6 00	.....
July 9, 1897	Carbon Coal Co.	St. David	40	6 00	.....
Oct. 1, 1897	"	"	52	8 00	.....
Jan. 3, 1898	"	"	70	8 00	.....
April 14, 1898	"	"	10	8 00	.....
Sept. 21, 1897	Clifford, Geo.	Oneida	7	6 00	.....
Nov. 24, 1897	"	"	10	6 00	.....
Sept. 10, 1897	Cline & Shaw	Fiatt	16	6 00	.....
Nov. 4, 1897	"	"	18	6 00	.....
Feb. 9, 1898	"	"	24	6 00	.....
June 1, 1898	"	"	10	6 00	.....
July 28, 1897	Colchester C. & M. Co.	Colchester	35	6 00	.....
Oct. 19, 1897	"	"	53	8 00	.....
Jan. 19, 1898	"	"	60	8 00	.....
April 28, 1898	"	"	60	8 00	.....
Sept. 3, 1897	Cook & Gilmor	Alexis	6	6 00	.....
Nov. 9, 1897	"	"	6	6 00	.....
Feb. 15, 1898	"	"	7	6 00	.....
Feb. 24, 1898	Corseffus, G. W.	Galesburg	8	6 00	.....
Jan. 20, 1898	Courtney, W. C.	Augusta	8	6 00	.....
Nov. 17, 1897	Cummings, W. M.	Rushville	6	6 00	.....
Oct. 22, 1897	Dougherty, Robt.	Table Grove .....	.....	.....	6 00
July 22, 1897	Dudley, Z. F.	Knoxville	6	6 00	.....
Oct. 22, 1897	"	"	12	6 00	.....
Feb. 25, 1898	"	"	8	6 00	.....
May 23, 1898	"	"	6	6 00	.....
Oct. 19, 1897	Egerton Coal Co.	Colchester	60	8 00	.....
April 28, 1898	"	"	51	8 00	.....
Jan. 19, 1898	Egerton Bros.	"	65	8 00	.....
July 29, 1897	Egerton Miner's Coop. C. Co.	"	50	6 00	.....
Aug. 31, 1897	Endrex, Geo.	Yates City	5	6 00	.....
Dec. 6, 1897	"	"	7	6 00	.....
July 22, 1897	Essex, Geo. W.	Soperville	25	6 00	.....
Oct. 12, 1897	"	"	35	6 00	.....
Feb. 23, 1898	"	"	36	6 00	.....
May 24, 1898	"	"	13	6 00	.....
Sept. 7, 1897	Farmington Coal Co.	Farmington	40	6 00	.....
Oct. 11, 1897	"	"	96	8 00	.....
Feb. 1, 1898	"	"	65	8 00	.....
April 27, 1898	"	"	68	8 00	.....
Oct. 7, 1897	Findley Coal & Coke Co.	"	30	6 00	.....
Jan. 10, 1898	"	"	29	6 0	.....
April 2, 1898	"	"	15	6 00	.....
Sept. 16, 1897	Gould, R. E.	Fairview .....	.....	.....	6 00
Nov. 23, 1897	Jacobson & Son, John.	Wataga	6	6 00	.....
May 13, 1898	Jarvis, T. H.	Astoria	8	6 00	.....
Jan. 17, 1898	Jordan & Son, Wm.	St. David .....	.....	.....	6 00
Mar. 4, 1898	Kerr, W. M.	Rushville	8	6 00	.....
June 14, 1898	"	"	6	6 00	.....
Oct. 22, 1897	Lathrop Bros.	Knoxville	12	6 00	.....
Feb. 25, 1898	"	"	10	6 00	.....

Third District. Statement—Continued.

Date of Inspection.	Name of Firm, Company or Person Operating Mine.	Location of Mine.	Number of men employed.	Inspection fee charged.	Inspection fee paid.
July 13, 1897	Laws, J. M.	Cuba	26	\$6 00	
Nov. 3, 1897	"	"	30	8 00	
Feb. 5, 1898	"	"	30	6 00	
May 27, 1898	"	"	30	6 00	
Sept. 20, 1897	Lowery & Kiunoman	Lewiston	5	6 00	
Nov. 12, 1897	"	"	7	6 00	
Feb. 9, 1898	"	"	7	6 00	
June 13, 1898	"	"	6	6 00	
Oct. 11, 1897	Maplewood Coal Co.	Farmington	70	8 00	
Feb. 22, 1898	"	"	60	8 00	
April 12, 1898	"	"	62	8 00	
Sept. 8, 1897	Meehan, Patrick	Breeds	25	6 00	
Oct. 26, 1897	"	"	25	6 00	
Jan. 14, 1898	"	"	30	6 00	
April 11, 1898	"	"	20	6 00	
Aug. 10, 1897	Meredith Bros	Augusta	22	6 00	
Oct. 21, 1897	"	"	14	6 00	
Jan. 20, 1898	"	"	20	6 00	
April 29, 1898	"	"	30	8 00	
Sept. 3, 1897	Murphy & Redmond	Monmouth	6	6 00	
Nov. 8, 1897	"	"	11	6 00	
Feb. 14, 1898	"	"	8	6 00	
Sept. 3, 1897	McCartney, C F	Alexis	6	6 00	
Nov. 9, 1897	"	"	9	6 00	
Feb. 15, 1898	"	"	6	6 00	
Sept. 1, 1897	McGovern, Jas	Oneida	5	6 00	
Nov. 24, 1897	"	"	12	6 00	
Mar. 9, 1898	"	"	9	6 00	
Mar. 9, 1898	McMullen, Wm	Elmwood			\$6 00
Jan. 10, 1898	Nappin, David	Farmington	8	6 00	
April 12, 1898	"	"	9	6 00	
July 13, 1897	Nicholson & Son, Wm	Cuba	25	6 00	
Aug. 30, 1897	Norris Coal Co	Norris	20	6 00	
Oct. 5, 1897	Parcell, Thos	Canton	10	6 00	
Jan. 22, 1898	"	"	8	6 00	
May 3, 1898	"	"	18	6 00	
Aug. 5, 1897	Pieton, Emmons & Co	Farmington	9	6 00	
Aug. 9, 1897	Porter, Wm	Macomb	9	6 00	
Oct. 20, 1897	"	"	7	6 00	
Feb. 3, 1898	"	"	8	6 00	
Jan. 20, 1898	Ray, M. F	Augusta	7	6 00	
July 23, 1897	Reed & Pendergast	Soperville	13	6 00	
Oct. 13, 1897	"	"	12	6 00	
Feb. 23, 1898	"	"	14	6 00	
May 24, 1898	"	"	6	6 00	
July 28, 1897	Rippetoe & Rundle	Colchester	60	8 00	
Oct. 19, 1897	"	"	52	8 00	
Jan. 19, 1898	"	"	55	8 00	
April 28, 1898	"	"	52	8 00	
Mar. 10, 1898	Roddis & Son, R	Ipava			24 00
Sept. 1, 1897	Ross & Woodward	Soperville	10	6 00	
Oct. 12, 1897	"	"	14	6 00	
Feb. 23, 1898	"	"	18	6 00	
May 24, 1898	"	"	8	6 00	
Sept. 3, 1897	Selkirk, John	Monmouth	8	6 00	
Nov. 8, 1897	"	"	8	6 00	
Sept. 3, 1897	Simcox, John	Alexis	8	6 00	
Nov. 9, 1897	"	"	8	6 00	
Feb. 15, 1898	"	"	8	6 00	
July 29, 1897	Sherbin, D B	Colchester	8	6 00	
Feb. 2, 1898	"	"	8	6 00	
Nov. 19, 1897	Sollenberger & Tygret	Canton	6	6 00	
Nov. 22, 1897	Stannard & Ruhl	Avon	7	6 00	
Aug. 4, 1897	Stickler, H	Canton	6	6 00	
July 16, 1897	Sunday Creek Coal Co	Middle Grove	6	6 00	
Oct. 7, 1897	"	"	68	8 00	
Jan. 11, 1898	"	"	82	8 00	
April 21, 1898	"	"	72	8 00	
Nov. 23, 1897	Taylor Bros	Wataga	57	8 00	
Mar. 8, 1898	"	"	15	6 00	
Nov. 3, 1897	Taylor & Conden	Cuba	10	6 00	
Feb. 8, 1898	"	"	30	6 00	
			41	6 00	

Third District, Statement—Concluded.

of tion.	Name of Firm, Company or Person Operating Mine.	Location of Mine.	Number of men employed.	Inspection fee charged.	Inspection fee paid.
8, 1897	Taylor & Peck	Cuba.....	30	\$6 00	
7, 1897	Thixton & Kerr	Rushville.....	4	6 00	
7, 1897	.....	.....	7	6 00	
2, 1897	Thompson & Esele	Norris	27	6 00	
0, 1897	Turner Bros.	Lewiston.....	9	6 00	
2, 1897	.....	.....	10	6 00	
5, 1898	.....	.....	15	6 00	
5, 1898	.....	.....	10	6 00	
7, 1897	Tyson, J. M.	Farmington	55	8 00	
3, 1898	Tygret, G. W.	Canton.....	6	6 00	
7, 1897	Wagles Bros. & Co .....	.....	7	6 00	
3, 1898	.....	.....	7	6 00	
4, 1898	Walton, Frank	Avon.....	7	6 00	
1, 1897	Westeen, Albert	Galesburg.....	9	6 00	
3, 1897	.....	.....	9	6 00	
4, 1898	.....	.....	9	6 00	
2, 1898	Whalen, Peter	Colchester.....	10	6 00	
0, 1897	Whalen Bros. ....	.....	10	6 00	
8, 1897	Whitebreast Fuel Co., C	Dunfermline.....	232	10 00	
5, 1897	.....	.....	256	10 00	
1, 1898	.....	.....	275	10 00	
8, 1898	.....	.....	288	10 00	
9, 1897	.....	St. David.....	95	8 00	
1, 1897	.....	.....	125	8 00	
7, 1898	.....	.....	138	8 00	
7, 1898	.....	.....	110	8 00	
7, 1897	Whitmore, David	Canton.....	6	6 00	
3, 1898	Williams, J. T.	Norris	40	6 00	
Total.....			....	\$1, 124 00	\$60 00-

FOURTH DISTRICT.

2, 1897	Adrian & Walmsley	East Peoria	6	\$6 00	
0, 1897	Athens Coal Co.	Athens.....	60	8 00	
2, 1897	.....	.....	125	10 00	
5, 1898	.....	.....	120	10 00	
6, 1898	.....	.....	80	8 00	
6, 1897	Axford, T.	Petersburg.....	7	6 00	
2, 1897	Butler & Co., Ph	East Peoria	7	6 00	
2, 1898	.....	.....	6	6 00	
2, 1897	Blake, A. C. ....	.....	32	6 00	
2, 1898	.....	.....	50	6 00	
9, 1898	.....	.....	10	6 00	
2, 1897	Bohländer Bros.	Pekin	13	6 00	
5, 1897	.....	.....	14	6 00	
7, 1897	Brookside Coal Co., No. 1.....	Grape Creek.....	56	8 00	\$12 00-
8, 1898	..... No. 1.....	.....	78	8 00	
2, 1898	..... No. 1.....	.....	53	8 00	
3, 1898	..... No. 1.....	.....	130	10 00	
8, 1898	..... No. 2.....	.....	18	6 00	
1, 1898	..... No. 2.....	.....	40	6 00	
8, 1897	Bunting Bros. ....	.....	23	6 00	
2, 1897	Cass Co. Coal Co.	Virginia	14	6 00	
3, 1897	.....	.....	14	6 00	
2, 1897	.....	Ashland	13	6 00	
3, 1898	.....	.....	33	6 00	
9, 1897	Catlin Coal Co.	Catlin.....	125	8 00	
2, 1897	.....	.....	112	10 00	
4, 1898	.....	.....	91	8 00	
2, 1898	.....	.....	70	8 00	
25, 1897	Chicago & K. C. Coal Co.	Petersburg.....	89	8 00	
1, 1898	.....	.....	116	10 00	
10, 1897	Citizen's Coal Co.	Lincoln.....	90	8 00	
1, 1898	.....	.....	70	8 00	
6, 1897	Colfax C. & M. Co.	Colfax	45	6 00	
3, 1897	.....	.....	31	6 00	
7, 1898	.....	.....	35	6 00	
11, 1898	.....	.....	24	6 00	

Fourth District, Statement—Continued.

Date of Inspection.	Name of Firm, Company or Person Operating Mine.	Location of Mine.	Number of men employed.	Inspection fee charged.	Inspection fee paid.
Nov. 4, 1897	Consolidated Coal Co., St. Louis, Mo.—				
Feb. 11, 1898	.. No. 4 mine.....	Danville.....	35	\$6 00	.....
Mar. 19, 1898	.. ..	..	60	8 00	.....
Feb. 22, 1898	.. ..	..	65	8 00	.....
May 4, 1898	.. Fairmount mine	Fairmount.....	85	8 00	.....
May 19, 1898	.. ..	..	98	8 00	.....
Aug. 5, 1897	Davis Coal Co.....	Chenoa.....	95	8 00	.....
Mar. 7, 1898	.. ..	..	8	6 00	.....
June 20, 1898	.. ..	..	10	6 00	.....
Sept. 10, 1897	Decatur Coal Co., No. 2.....	Decatur.....	8	6 00	.....
Dec. 23, 1897	.. No. 2.....	..	160	10 00	\$212 00
Mar. 31, 1898	.. No. 2.....	..	189	10 00	.....
Sept. 11, 1897	.. No. 1.....	..	120	10 00	.....
Dec. 23, 1897	.. No. 1.....	..	118	8 00	.....
Mar. 31, 1898	.. No. 1.....	..	149	10 00	.....
Sept. 15, 1897	.. Niantic.....	Niantic.....	135	10 00	.....
Oct. 29, 1897	.. ..	..	90	8 00	.....
May 9, 1898	.. ..	..	104	10 00	.....
Oct. 26, 1897	Denton, Wm.....	Petersburg.....	50	8 00	.....
Jan. 31, 1898	.. ..	..	7	6 00	.....
Oct. 13, 1897	Doering & Co., W. F.....	East Peoria.....	9	6 00	.....
Mar. 3, 1898	.. ..	..	9	6 00	.....
Oct. 13, 1897	East Peoria C. Co.....	..	30	6 00	.....
Mar. 3, 1898	.. ..	..	33	6 00	.....
Mar. 25, 1898	.. ..	..	22	6 00	.....
June 9, 1898	.. ..	..	12	6 00	.....
Nov. 16, 1897	Economy Coal Co.....	Danville.....	90	8 00	.....
Feb. 9, 1898	.. ..	..	130	10 00	.....
Mar. 11, 1898	.. ..	..	130	10 00	.....
April 18, 1898	.. ..	..	120	10 00	.....
June 3, 1898	Ellsworth, J. W.....	Glenburn.....	160	10 00	.....
Dec. 3, 1897	Francis Bros.....	Catlin.....	8	6 00	24 00
Nov. 23, 1897	Glenburn Coal Co.....	Glenburn.....	125	10 00	48 00
Oct. 15, 1897	Grant & Sons, L.....	Pekin.....	22	6 00	.....
Aug. 2, 1897	Grant Bros.....	..	23	6 00	.....
Oct. 27, 1897	Greenview Coal Co.....	Greenview.....	61	8 00	.....
Feb. 2, 1898	.. ..	..	65	8 00	.....
Oct. 5, 1897	Himrod Coal Co.....	Westville.....	25	6 00	.....
Dec. 13, 1897	.. ..	..	53	8 00	.....
Dec. 30, 1897	.. ..	..	58	8 00	.....
May 28, 1898	.. ..	..	110	10 00	.....
May 10, 1898	Illinois Fuel Co.....	Bloomington.....	15	6 00	.....
Dec. 1, 1897	Jenkins, D. A.....	Danville.....	10	6 00	.....
Sept. 3, 1897	Jones, Arthur.....	Catlin.....	.....	.....	6 00
Oct. 9, 1897	Jumps, Perry.....	Grape Creek.....	30	6 00	.....
July 8, 1897	Kellyville Coal Co., No. 2.....	Westville.....	254	10 00	.....
Nov. 19, 1897	.. No. 2.....	..	250	10 00	.....
Feb. 24, 1898	.. No. 2.....	..	340	10 00	.....
June 6, 1898	.. No. 2.....	..	341	10 00	.....
Nov. 1, 1897	.. No. 1.....	..	38	6 00	.....
Feb. 23, 1898	.. No. 1.....	..	42	6 00	.....
Nov. 5, 1897	.. No. 3.....	..	150	10 00	.....
Mar. 21, 1898	.. No. 3.....	..	250	10 00	.....
May 26, 1898	.. No. 3.....	..	240	10 00	.....
Dec. 21, 1897	Lincoln Coal Co.....	Lincoln.....	105	10 00	.....
Mar. 30, 1898	.. ..	..	80	8 00	.....
June 23, 1898	.. ..	..	90	8 00	.....
Mar. 4, 1898	Little & Co., E.....	Peoria.....	35	6 00	.....
Mar. 25, 1898	.. ..	..	35	6 00	.....
April 27, 1898	.. ..	..	40	6 00	.....
Oct. 14, 1897	Little Coal & Com. Co.....	..	25	6 00	.....
Dec. 7, 1897	Lloyd, J. E.....	Danville.....	12	6 00	.....
Mar. 17, 1898	.. ..	..	9	6 00	.....
May 23, 1898	.. ..	..	14	6 00	.....
June 10, 1898	Millard Bros.....	E. Peoria.....	26	6 00	.....
Sept. 23, 1897	Muncie Coal Co.....	Muncie.....	40	6 00	.....
Oct. 8, 1897	.. ..	..	35	6 00	.....
April 21, 1898	.. ..	..	22	6 00	.....
Nov. 12, 1897	McLean County Coal Co.....	Bloomington.....	295	10 00	.....
Feb. 18, 1898	.. ..	..	300	10 00	.....
Oct. 5, 1897	O'Connell, John.....	Grape Creek.....	38	6 00	.....

Fourth District, Statement.—Concluded.

Date of Inspection.	Name of Firm, Company or Person Operating Mine.	Location of Mine.	Number of men employed.	Inspection fee charged.	Inspection fee paid.
Nov. 26, 1897	O'Connell, John.....	Grape Creek.....	47	\$6 00	.....
Mar. 15, 1898	".....	".....	44	6 00	.....
May 6, 1898	".....	".....	59	8 00	.....
Oct. 30, 1897	Pawnee Coal Co.....	Danville.....	250	10 00	.....
Nov. 24, 1897	".....	".....	225	10 00	.....
May 31, 1898	".....	".....	150	10 00	.....
Oct. 13, 1897	Rusche Bros.....	E. Peoria.....	8	6 00	.....
Mar. 4, 1898	".....	".....	10	6 00	.....
Oct. 16, 1897	Sloan, E. C.....	Pekin.....	14	6 00	.....
Mar. 5, 1898	".....	".....	16	6 00	.....
Mar. 26, 1898	".....	".....	22	6 00	.....
April 28, 1898	".....	".....	22	6 00	.....
Jan. 31, 1898	South Mountain Coal Co.....	Petersburg.....	10	6 00	.....
Oct. 27, 1897	Tallula Coal Co.....	Talula.....	38	6 00	\$48 00
Nov. 10, 1897	".....	".....	32	6 00	.....
Feb. 2, 1898	".....	".....	33	6 00	.....
Dec. 22, 1897	Union Coal & Mining Co.....	Mt. Pulaski.....	33	6 00	.....
Mar. 29, 1898	".....	".....	20	6 00	.....
July 31, 1897	Wabash Coal Co.....	Athens.....	80	8 00	.....
Oct. 21, 1897	".....	".....	84	8 00	.....
Feb. 4, 1898	".....	".....	125	10 00	.....
June 15, 1898	".....	".....	115	10 00	.....
July 7, 1897	Westville Coal Co.....	Westville.....	225	10 00	.....
Nov. 18, 1897	".....	".....	221	10 00	.....
Dec. 31, 1897	".....	".....	220	10 00	.....
Jan. 15, 1898	".....	".....	F A	10 00	.....
Feb. 10, 1898	".....	".....	240	10 00	.....
May 18, 1898	".....	".....	220	10 00	.....
June 13, 1898	".....	".....	F A	10 00	.....
Total.....			.....	\$1,026 00	\$350 00

FIFTH DISTRICT.

Oct. 22, 1897	Assumption C. & M. Co.....	Assumption.....	154	\$10 00	\$44 00
Mar. 9, 1898	".....	".....	140	10 00	.....
June 23, 1898	".....	".....	25	6 00	.....
Oct. 15, 1897	Auburn Coal Co.....	Auburn.....	25	6 00	.....
Jan. 28, 1898	".....	".....	28	6 00	.....
June 13, 1898	".....	".....	10	6 00	.....
Nov. 30, 1897	Barclay Coal Co.....	Springfield.....	130	10 00	.....
Feb. 23, 1898	".....	".....	102	10 00	.....
May 19, 1898	".....	".....	78	8 00	.....
Nov. 23, 1897	Bates & Co., W. H.....	Winchester.....	35	6 00	18 00
Mar. 30, 1898	".....	".....	45	6 00	.....
Nov. 29, 1897	Black Diamond C. & T. Co.....	Iles Junction.....	90	8 00	.....
Feb. 7, 1898	".....	".....	120	10 00	.....
June 1, 1898	".....	".....	70	8 00	.....
Oct. 12, 1897	Capital Coal Co. No. 1.....	Springfield.....	22	6 00	.....
Jan. 22, 1898	" No. 1.....	".....	25	6 00	.....
April 14, 1898	" No. 1.....	".....	90	8 00	.....
Oct. 12, 1897	" No. 2.....	".....	70	8 00	.....
Jan. 23, 1898	" No. 2.....	".....	80	8 00	.....
June 22, 1898	" No. 2.....	".....	33	6 00	.....
Oct. 14, 1897	Cantrall Coop. Coal Co.....	Cantrall.....	120	10 00	.....
Mar. 2, 1898	".....	".....	118	10 00	.....
May 17, 1898	".....	".....	102	10 00	.....
July 30, 1897	Carlinsville Coal Co.....	Carlinsville.....	8	6 00	.....
Nov. 9, 1897	".....	".....	75	8 00	.....
Jan. 10, 1898	".....	".....	115	10 00	.....
May 18, 1898	".....	".....	60	6 00	.....
Feb. 9, 1898	Chatham Coal Co.....	Chatham.....	40	6 00	.....
April 29, 1898	".....	".....	50	6 00	.....
Nov. 2, 1897	Chicago-Virden Coal Co. No. 1.....	Virden.....	330	10 00	.....
Jan. 14, 1898	" No. 1.....	".....	275	10 00	.....
April 8, 1898	" No. 1.....	".....	200	10 00	.....
Oct. 15, 1897	" No. 2.....	Auburn.....	150	10 00	.....

Fifth District, Statement—Continued.

Date of Inspection.	Name of Firm, Company or Person Operating Mine.	Location of Mine.	Number of men employed.	Inspection fee charged.	Inspection fee paid.
Jan. 27, 1898	Chicago-Virden Coal Co. No. 2	Auburn	165	\$10 00	
June 13, 1898	No. 2		120	10 00	
Nov. 11, 1897	Citizens' Coal Co. A	Springfield	146	10 00	
Feb. 14, 1898	A		220	10 00	
May 16, 1898	A		175	10 00	
Mar. 23, 1898	B		22	6 00	
Dec. 2, 1897	Clear Lake Coop. C. Co.	Bissell	78	8 00	
Feb. 24, 1898			70	8 00	
June 2, 1898			60	6 00	
Sept. 20, 1897	Coffeen Coal & Copper Co.	Coffeen	124	10 00	
Nov. 16, 1897			150	10 00	
Feb. 15, 1898			200	10 00	
May 3, 1898			180	10 00	
	Cosol. Coal Co., St. Louis, Mo.—				
Dec. 20, 1897	No. 10 Mine.	Mt. Olive	196	10 00	
Mar. 16, 1898	No. 10		200	10 00	
May 5, 1898	No. 10		200	10 00	
Dec. 20, 1897	No. 8		175	10 00	
Mar. 16, 1898	No. 8		221	10 00	
May 5, 1898	No. 8		240	10 00	
Mar. 15, 1898	No. 6	Staunton	250	10 00	
June 20, 1898	No. 6		270	10 00	
Mar. 15, 1898	No. 7		150	10 00	
June 21, 1898	No. 7		125	10 00	
Dec. 23, 1897	Gillespie Mine.	Gillespie	75	8 00	
Feb. 16, 1898			110	10 00	
April 20, 1898			110	10 00	
Dec. 29, 1897	Bunker Hill Mine.	Bunker Hill	14	6 00	
Feb. 17, 1898	Hornsby Mine.	Hornsby	102	10 00	
April 25, 1898			85	8 00	
Sept. 6, 1897	Ellsworth & Co. J. W.	Virden			\$38 00
Nov. 5, 1897	Edinburg Coop. C. Co.	Edinburg	6	6 00	
Jan. 18, 1898			30	6 00	
April 3, 1898			18	6 00	
July 6, 1897	Girard Coal Co.	Girard	100	8 00	
Oct. 8, 1897			120	10 00	
Jan. 11, 1898			130	10 00	
May 31, 1898			50	6 00	
Oct. 25, 1897	Green Ridge Coal Co.		165	10 00	34 00
Dec. 27, 1897	Hebenstreit, Bruno No. 7.	Staunton	90	8 00	
Oct. 5, 1897	Hillsboro Coal Co.	Hillsboro	90	8 00	
Feb. 18, 1898			130	10 00	
April 16, 1898			25	6 00	
Sept. 23, 1897	Horse Creek Coal Co.	Pawnee	9	6 00	
Jan. 26, 1898			10	6 00	
July 7, 1897	Litchfield M. & P. Co.	Litchfield	50	6 00	
Oct. 7, 1897			48	6 00	
Jan. 15, 1898			50	6 00	
April 4, 1898			40	6 00	
July 22, 1897	Litchfield M. & M. Co.		31	6 00	
Oct. 7, 1897			40	6 00	
Jan. 15, 1898			48	6 00	
Sept. 20, 1897	Lueking, C. H.	Fosterburg			6 00
Nov. 1, 1897	Madison Coal Co. No. 5	Mt. Olive	220	10 00	
Jan. 12, 1898	No. 5		200	10 00	
May 7, 1898	No. 5		220	10 00	
Sept. 23, 1897	Micheals, Chas.	Fancher			6 00
Dec. 8, 1897	Montgomery Coal Co.	Witt	15	6 00	12 00
Mar. 10, 1898			24	6 00	
June 16, 1898			30	6 00	
Nov. 3, 1897	Moweaqua C. M. Mfg. Co.	Moweaqua	128	10 00	40 00
Mar. 8, 1898			111	10 00	
June 15, 1898			125	10 00	
Nov. 19, 1897	Murphy & Senseney	Chatham	40	6 00	
July 21, 1897	Neil & Co., Wm.	Bunker Hill	9	6 00	
Sept. 10, 1897	Nilwood Carbon C. Co.	Nilwood	6	6 00	
Nov. 15, 1897			48	6 00	
Jan. 19, 1898			43	6 00	
Jan. 20, 1898	O'Gara, King & Co.	Green Ridge	150	10 00	
May 31, 1898			140	10 00	
July 14, 1897	Pana Coal Co.	Pana	175	10 00	
Oct. 23, 1897			150	10 00	
Feb. 1, 1898			138	10 00	

Fifth District, Statement—Concluded.

of tion.	Name of Firm, Company or Person Operating Mine.	Location of Mine.	Number of men employed.	Inspection fee charged.	Inspection fee paid.
5, 1897	Penwell C. M. Co.	Pana	205	\$10 00	\$60 00
21, 1897	"	"	120	10 00	
29, 1898	"	"	230	10 00	
8, 1897	Raymond Coal Co.	Raymond	10	6 00	
4, 1897	Richardson, John	Shelbyville	16	6 00	
29, 1897	Riverton Coal Co., No. 2	Riverton	160	10 00	
12, 1898	" No. 2	"	221	10 00	
3, 1898	" No. 1	"	10	6 00	
3, 1898	" No. 1	"	250	10 00	
12, 1898	Rutledge, Walton	Spaulding			6 00
12, 1897	Sangamon Coal Co.	Springfield	120	10 00	
25, 1898	"	"	121	10 00	
10, 1898	"	"	132	10 00	
11, 1897	Spaulding Coal Co.	Spaulding	125	10 00	
1, 1898	"	"	121	10 00	
18, 1898	"	"	110	10 00	
27, 1897	Springfield C. M. & T. Co.	Springfield	131	10 00	
2, 1898	"	"	126	10 00	
12, 1898	"	"	90	8 00	
29, 1897	Springfield Coop. C. Co.	Ridgely	85	8 00	
4, 1898	"	"	85	8 00	
13, 1898	"	"	50	6 00	
29, 1897	Springfield Iron Co.	"	110	10 00	
3, 1898	"	"	120	10 00	
28, 1898	"	"	80	8 00	
10, 1897	Springfield Junction C. Co.	Iles Junction	70	8 00	
5, 1899	"	"	85	8 00	
1, 1898	"	"	78	8 00	
27, 1897	Springfield & P. P. Coal Co.	Pleasant Plains	14	6 00	
3, 1897	"	"	26	6 00	
22, 1898	"	"	21	6 00	
24, 1898	"	"	18	6 00	
4, 1897	Springside Coal Co.	Pana	152	10 00	
21, 1898	"	"	140	10 00	
13, 1897	Starne's Coal M. Co.	Springfield	124	10 00	
24, 1898	"	"	120	10 00	
2, 1898	"	"	90	8 00	
4, 1897	Stretch, B. F.	Shelbyville	12	6 00	
11, 1897	Taylorville Coal Co.	Taylorville	150	10 00	50 00
17, 1898	"	"	242	10 00	
6, 1898	"	"	250	10 00	
6, 1897	Thomas Pressed Brick Co.	Golden Eagle	13	6 00	
9, 1897	Virden Coal Co.	Virden	130	10 00	
13, 1898	"	"	142	10 00	
8, 1898	"	"	132	10 00	
28, 1897	Wabash Coal Co.	Dawson	90	8 00	
11, 1898	"	"	115	10 00	
20, 1898	"	"	80	8 00	
21, 1897	Weisenborn, F. E., No. 6	Staunton	201	10 00	
17, 1897	West End Coal Co.	Springfield	125	10 00	
8, 1898	"	"	90	8 00	
7, 1898	"	"	65	6 00	
9, 1897	Williams, W. W.	Hornsby	85	8 00	
28, 1898	"	"	75	8 00	
18, 1897	Williamsville Coal Co.	Williamsville	85	8 00	
10, 1898	"	"	90	8 00	
9, 1898	"	"	75	8 00	
10, 1897	Woodside Coal Co.	Springfield	92	8 00	
21, 1898	"	"	120	10 00	
29, 1898	"	"	95	8 00	
Total				\$1,350 00	\$314 00

SIXTH DISTRICT.

Date of Inspection.	Name of Firm, Company or Person Operating Mine.	Location of Mine.	Number of men employed.	Inspection fee charged.	Inspection fee paid.
Nov. 4, 1897	Advance Coal Co.	Marissa.	30	\$5 00	
Feb. 10, 1898	..	..	30	6 00	
May 9, 1898	..	..	10	6 00	
June 11, 1898	Belleville and O'Fallon Coal Co.	Belleville	43	6 00	
Nov. 12, 1897	Bituminous Coal Co.	..	28	6 00	
Aug. 18, 1897	Breese Coal Co.	Breese	140	8 00	
Oct. 26, 1897	..	..	160	10 00	
Jan. 20, 1898	..	..	150	10 00	
April 15, 1898	..	..	165	10 00	
Nov. 11, 1897	Briar Hill Coal Co.	Pittsburg Station	40	6 00	
July 28, 1897	Centralia M. & Mfg. Co.	Centralia.	145	8 00	\$52 00
Oct. 18, 1897	..	..	164	10 00	
Jan. 12, 1898	..	..	150	10 00	
April 9, 1898	..	..	130	10 00	
Mar. 23, 1898	Chalingworth. Wm.	Fosterburg			6 00
	Consolidated Coal Co., Laclede Bldg., St. Louis, Mo.—				
Jan. 10, 1898	Abbey No. 3 mine	Collinsville	110	10 00	
June 27, 1898	.. No. 3 ..	..	120	10 00	
Dec. 13, 1897	.. No. 4 ..	..	35	6 00	
Jan. 17, 1898	.. No. 4 ..	..	23	6 00	
Dec. 28, 1897	Alma mine	Ridge Prairie	13	6 00	
Feb. 12, 1898	..	..	30	6 00	
Oct. 26, 1897	Breese mine	Breese	55	8 00	
Jan. 20, 1898	..	..	60	8 00	
June 25, 1898	..	..	20	6 00	
Jan. 18, 1898	Brookside mine	Troy	55	8 00	
Dec. 22, 1897	Gartside No. 4 mine	Belleville	35	6 00	
Feb. 9, 1898	.. No. 4 ..	..	40	6 00	
May 18, 1898	.. No. 4 ..	..	50	6 00	
Dec. 22, 1897	Green Mount mine	..	20	6 00	
Mar. 29, 1898	..	..	40	6 00	
June 10, 1898	..	..	68	8 00	
Jan. 17, 1898	Heintz Bluff mine	Collinsville	85	8 00	
May 10, 1898	..	..	90	8 00	
Nov. 4, 1897	Marissa mine	Marissa	27	6 00	
Feb. 10, 1898	..	..	33	6 00	
May 9, 1898	..	..	23	6 00	
Dec. 23, 1897	Mentor mine	Ridge Prairie	18	6 00	
Feb. 4, 1898	..	..	22	6 00	
Dec. 24, 1897	Pittsburg mine	Belleville	12	6 00	
Mar. 15, 1898	..	..	24	6 00	
Dec. 23, 1897	Richland mine	..	8	6 00	
Feb. 21, 1898	..	..	17	6 00	
Dec. 21, 1897	Rose Hill mine	..	22	6 00	
Mar. 29, 1898	..	..	30	6 00	
Dec. 24, 1897	Schureman mine	..	35	6 00	
Feb. 21, 1898	..	..	41	6 00	
May 2, 1898	..	..	52	6 00	
Sept. 25, 1897	Trenton mine	Trenton	140	8 00	
Nov. 9, 1897	..	..	150	10 00	
Jan. 15, 1898	..	..	150	10 00	
May 6, 1898	..	..	86	8 00	
Jan. 18, 1898	Troy mine	Troy	60	8 00	
June 21, 1898	..	..	58	8 00	
Jan. 27, 1898	White Oak mine	Marissa	31	6 00	
April 18, 1898	..	..	40	6 00	
Dec. 30, 1897	Worden No. 12	Worden	24	6 00	
Mar. 8, 1898	..	..	26	6 00	
Nov. 11, 1897	Crown Coal and Tow Co. No. 2	Belleville	35	6 00	
Dec. 14, 1897	.. No. 4 ..	..	60	8 00	
Feb. 7, 1898	.. No. 4 ..	..	75	8 00	
June 9, 1898	.. No. 4 ..	..	76	8 00	
Sept. 15, 1897	Deitrick, John	Freeburg			6 00
Dec. 7, 1897	Donk Bros	Belleville	30	6 00	
Feb. 16, 1898	..	..	40	6 00	
May 24, 1898	..	..	78	8 00	
Oct. 14, 1897	Dutch Hollow Coal Co.	Freeburg	30	6 00	
Mar. 10, 1898	..	..	42	6 00	
June 20, 1898	..	..	24	6 00	

Sixth District, Statement—Continued.

Year of Inspection.	Name of Firm, Company or Person Operating Mine.	Location of Mine.	Number of men employed.	Inspection fee charged.	Inspection fee paid.
23, 1897	Freeburg Mining Co.	Freeburg	16	\$6 00	
14, 1897	"	"	20	6 00	
10, 1896	"	"	14	6 00	
20, 1896	"	"	12	6 00	
7, 1897	Glendale C. & M. Co.	Belleville	100	10 00	
11, 1896	"	"	75	8 00	
12, 1896	"	"	90	9 00	
22, 1897	Gnest & Co., Jos.	"	15	6 00	
11, 1897	Highland Coal Co.	"	42	6 00	\$36 00
24, 1896	"	"	45	6 00	
12, 1896	"	"	37	6 00	
20, 1897	Hippard, Geo.	"	30	6 00	
16, 1897	"	"	75	8 00	
16, 1896	"	"	58	8 00	
22, 1897	Humboldt Coal Co.	"	14	6 00	
5, 1897	"	"	20	6 00	
29, 1896	"	"	29	6 00	
4, 1897	Johnson Coal Co.	Marissa	30	6 00	
27, 1896	"	"	25	6 00	
18, 1896	"	"	30	6 00	
8, 1896	Johnson M. Co.	Belleville	14	6 00	
25, 1897	Kinmundy Coal Co.	Kinmundy	30	6 00	
17, 1896	"	"	53	8 00	
7, 1897	Kolb Coal Co.	Mascoutah	50	8 00	
7, 1896	"	"	60	8 00	
6, 1897	Krantz, Jacob	Belleville	18	6 00	18 00
7, 1896	"	"	14	6 00	
7, 1897	Lebanon Coal & Mch. Co.	Lebanon	25	6 00	
14, 1897	"	"	25	6 00	
12, 1897	"	"	100	10 00	
29, 1896	"	"	85	8 00	
5, 1897	Liskerman, Phillip	Caseyville	12	6 00	
13, 1897	Lumaghi Coal Co.	Collinsville	120	10 00	
28, 1896	"	"	85	8 00	
27, 1896	"	"	85	8 00	
22, 1897	Madison Coal Co., No. 3	Edwardsville	40	6 00	
20, 1896	" No. 3	"	20	6 00	
16, 1897	" No. 4	Glen Carbon	170	10 00	
13, 1896	" No. 4	"	104	10 00	
13, 1896	" No. 2	"	180	10 00	
28, 1896	" No. 2	"	150	10 00	
4, 1897	Massie Coal Co., No. 1	Belleville	16	6 00	
15, 1896	" No. 1	"	42	6 00	
5, 1897	" No. 2	"	35	6 00	
15, 1896	" No. 2	"	15	6 00	
6, 1897	Millstadt C. & M. Co.	Millstadt	21	6 00	
8, 1897	"	"	34	6 00	
9, 1896	"	"	24	6 00	
15, 1897	Moser Coal Co.	Rentchler	8	6 00	
16, 1896	"	"	12	6 00	
	Mo. & Ill. Coal Co., Rialto Bldg., St. Louis Mo.—				
21, 1897	Rentchler mine	Rentchler	30	6 00	
16, 1896	"	"	60	8 00	
19, 1896	"	"	55	8 00	
23, 1897	Freeburg mine	Freeburg	45	6 00	
10, 1896	"	"	51	8 00	
8, 1896	"	"	56	8 00	
23, 1897	Wilderman mine	Wilderman	35	6 00	
21, 1896	"	"	35	6 00	
8, 1896	"	"	40	6 00	
8, 1896	Mt. Olive & Staunton C. Co.	Staunton	75	8 00	
26, 1896	"	"	88	8 00	
12, 1897	Muren Coal Co.	Belleville	30	6 00	
15, 1896	"	"	67	8 00	
9, 1896	"	"	52	8 00	
20, 1897	Oak Hill C. & M. Co.	"	20	6 00	
6, 1897	"	"	40	6 00	
9, 1896	"	"	22	6 00	
24, 1896	"	"	22	6 00	

Sixth District, Statement—Concluded.

Date of Inspection.	Name of Firm, Company or Person Operating Mine.	Location of Mine.	Number of men employed.	Inspection fee charged.	Inspection fee paid.
Sept. 21, 1897	Oakland Coal Co.	Belleville.	21	\$6 00	
Oct. 15, 1897	"	"	40	6 00	
Feb. 9, 1898	"	"	30	6 00	
May 12, 1898	"	"	30	6 00	
July 26, 1897	Odin Coal Co.	Odin	125	8 00	
Oct. 20, 1897	"	"	100	10 00	
Jan. 21, 1898	"	"	100	10 00	
April 13, 1898	"	"	140	10 00	
Oct. 13, 1897	O'Fallon C. & M. Co.	O'Fallon	54	8 00	
Jan. 29, 1898	"	"	65	8 00	
Nov. 12, 1897	Ogden & Bro., Wm.	Rentchler	20	6 00	
Mar. 16, 1898	"	"	24	6 00	
July 27, 1897	Pettinger & Davis.	Centralia	150	10 00	
Nov. 29, 1897	"	"	120	10 00	
Feb. 25, 1898	"	"	160	10 00	
Mar. 9, 1898	Pistor, Wm.	Millstadt	6	6 00	
Nov. 5, 1897	Ratican, Joyce & Greive	Collinsville	35	6 00	
June 22, 1898	"	"	60	8 00	
Oct. 4, 1897	Reinecke, Conrad	Belleville.	56	8 00	
Jan. 25, 1898	"	"	80	8 00	
April 27, 1898	Reinecke Coal Co.	"	71	8 00	
Feb. 4, 1898	Ruby Coal & M. Co.	Caseyville	50	8 00	
Aug. 2, 1897	Salem Coal Co.	Salem	13	6 00	
Nov. 26, 1897	"	"	20	6 00	
Feb. 17, 1898	"	"	28	6 00	
May 26, 1898	"	"	17	6 00	
Aug. 27, 1897	Sandoval Coal Co.	Sandoval	30	6 00	
Oct. 19, 1897	"	"	130	10 00	
Jan. 21, 1898	"	"	120	10 00	
Sept. 23, 1897	Skellett Coal Co.	Belleville.	30	6 00	
Nov. 6, 1897	"	"	64	8 00	
Feb. 14, 1898	"	"	45	6 00	
May 18, 1898	"	"	30	6 00	
July 22, 1897	Somers, Jos.	Smithboro	21	6 00	
Nov. 1, 1897	"	"	25	6 00	
Feb. 5, 1898	"	"	27	6 00	
April 16, 1898	"	"	16	6 00	
Nov. 2, 1897	Sorento P. & M. Co.	Sorento	130	10 00	\$42 00
Feb. 2, 1898	"	"	120	10 00	
May 5, 1898	"	"	125	10 00	
Sept. 23, 1897	Summit Coal Co.	Birkner	30	6 00	
Nov. 6, 1897	"	"	42	6 00	
Feb. 14, 1898	"	"	32	6 00	
May 18, 1898	"	"	16	6 00	
July 9, 1897	Superior C. & M. Co.	Kinmundy	25	6 00	
Sept. 1, 1897	"	"	30	6 00	
Mar. 18, 1898	"	"	40	6 00	
July 13, 1897	Taylor, Jos.	O'Fallon	53	8 00	
Oct. 13, 1897	"	"	84	8 00	
Feb. 12, 1898	"	"	70	8 00	
July 12, 1897	Tirre Coal Co.	Lenzburg.	20	6 00	
Mar. 22, 1898	"	"	36	6 00	
June 18, 1898	"	"	8	6 00	
Oct. 16, 1897	Tirre & Sons, Wm.	"	28	6 00	
Sept. 25, 1897	Trenton C. L. & P. Co.	Trenton	45	6 00	
Nov. 9, 1897	"	"	80	8 00	
Jan. 15, 1898	"	"	87	8 00	
April 21, 1898	"	"	56	8 00	
Dec. 30, 1897	Voge, Henry	Staunton	100	10 00	6 00
Sept. 22, 1897	Walnut Hill Coal Co.	Birkner.	25	6 00	
Oct. 15, 1897	"	"	45	6 00	
Feb. 8, 1898	"	"	35	6 00	
May 12, 1898	"	"	30	6 00	
May 19, 1898	Walnut Valley Coal Co.	Belleville	30	6 00	
Sept. 21, 1897	West End Coal Co.	"	10	6 00	
Oct. 5, 1897	"	"	19	6 00	
Feb. 15, 1898	"	"	22	6 00	
May 2, 1898	"	"	10	6 00	
Nov. 22, 1897	Wonderly Coal Co.	Edwardsville	40	6 00	
Total.....				\$1,434 00	\$166 00

SEVENTH DISTRICT.

e of ction.	Name of Firm, Company or Person Operating Mine.	Location of Mine.	Number of men employed.	Inspection fee charged.	Inspection fee paid.
8, 1897	Barber & Bro., C.	Tamaroa	20	\$6 00	
31, 1898			21	6 00	
2, 1897	Barnard, Wm.	Chester	14	6 00	
16, 1898			16	6 00	
16, 1898			10	6 00	
8, 1897	Berry & Bro., Jno. J.	Equality			\$6 00
14, 1897	Big Muddy Coal & Coke Co.	DeSoto	105	8 00	
19, 1897			105	8 00	
29, 1897			45	6 00	
7, 1898			55	8 00	
	Big Muddy C & I. Co., St. Louis, Mo.				
14, 1897	Harrison mine.	Murphysboro	80	8 00	
15, 1897			103	8 00	
24, 1898			130	10 00	
3, 1898			125	10 00	
6, 1897	No. 6		24	6 00	
4, 1898	No. 6		45	6 00	
11, 1897	No. 7	Herrins Prairie	38	6 00	
12, 1898	No. 7		25	6 00	
10, 1898	No. 7		48	6 00	
3, 1897	No. 5	Murphysboro	300	10 00	
14, 1898	No. 5		250	10 00	
27, 1898	No. 5		250	10 00	
21, 1897	Boyd Coal & Coke Co. No. 1	Sparta	50	6 00	
27, 1898	No. 1		40	6 00	
2, 1898	No. 1		26	6 00	
3, 1897	No. 2		14	6 00	
16, 1898	No. 2		18	6 00	
2, 1898	No. 2		8	6 00	
20, 1897	Brown & Son, G. W.	Pinckneyville	36	6 00	
2, 1897			50	6 00	
1, 1898			58	8 00	
14, 1898			90	8 00	
2, 1897	Brown & Barwell	Cutler	35	6 00	
16, 1898			30	6 00	
14, 1898			48	6 00	
3, 1898	Brueggemann, J. F.	Nashville	11	6 00	
25, 1897	Carterville Coal Co.	Carterville	120	8 00	
22, 1898			125	10 00	
14, 1898			80	8 00	
28, 1897	Coulterville M. Co.	Coulterville	35	6 00	
27, 1898			40	6 00	
18, 1898			31	6 00	
7, 1897	Crab Orchard Coal Co.	Marion	28	6 00	
10, 1897			46	6 00	
7, 1898			48	6 00	
21, 1898			40	6 00	
31, 1897	Davenport Coal Co.	Harrisburg	50	6 00	34 00
30, 1897			85	8 00	
28, 1898			70	8 00	
13, 1897	Davis & Greenwood C. Co.	DuQuoin	100	8 00	
18, 1898			85	8 00	
12, 1898			83	8 00	
	DuQuoin Union C. Co., DuQuoin—				
8, 1897	Browning mine	DuQuoin	60	8 00	
20, 1897			80	8 00	
20, 1898			100	10 00	
12, 1897	Enterprise mine		75	8 00	
19, 1898			80	8 00	
18, 1897	Egyptian mine		30	6 00	
17, 1898			36	6 00	
13, 1898			44	6 00	
9, 1897	Equality Coal Co.	Equality	32	6 00	24 00
29, 1897			55	8 00	
23, 1898			18	6 00	
23, 1897	Gartside Coal Co. No. 1	Murphysboro	26	6 00	
1, 1897	No. 1		25	6 00	
7, 1898	No. 1		36	6 00	
4, 1898	No. 1		36	6 00	
18, 1897	No. 3		50	6 00	
29, 1897	No. 3		50	6 00	

Seventh District, Statement—Continued.

Date of Inspection.	Name of Firm, Company or Person Operating Mine.	Location of Mine.	Number of men employed.	Inspection fee charged.	Inspection fee paid.
Dec. 1, 1897	Gartside Coal Co. No. 3.....	Murphysboro	50	\$6 00	.....
Feb. 7, 1898	" " No. 3.....	" " ".....	68	8 00	.....
April 4, 1898	" " No. 3.....	" " ".....	60	8 00	.....
Oct. 30, 1897	" " No. 4.....	" " ".....	85	8 00	.....
Jan. 24, 1898	" " No. 4.....	" " ".....	75	8 00	.....
May 4, 1898	" " No. 4.....	" " ".....	75	8 00	.....
Dec. 2, 1897	Goalby & Son, G. W.....	Percy.....	30	6 00	.....
Feb. 15, 1898	" " ".....	" " ".....	32	6 00	.....
June 27, 1898	" " ".....	" " ".....	20	6 00	.....
Oct. 28, 1897	Goddard, Wm.....	Tilden.....	32	6 00	.....
April 18, 1898	" " ".....	" " ".....	40	6 00	.....
Mar. 28, 1898	Harrisburg Coal Co.....	Harrisburg.....	10	6 00	.....
June 23, 1898	" " ".....	" " ".....	23	6 00	.....
July 26, 1897	Horn Colliery Co.....	DuQuoin.....	124	8 00	.....
Nov. 18, 1897	" " ".....	" " ".....	170	10 00	.....
Jan. 19, 1898	" " ".....	" " ".....	200	10 00	.....
May 23, 1898	" " ".....	" " ".....	130	10 00	.....
July 17, 1897	I. C. Coal and Salt Co.....	St. Johns.....	125	8 00	.....
Dec. 18, 1897	" " ".....	" " ".....	40	8 00	.....
Feb. 24, 1898	" " ".....	" " ".....	135	10 00	.....
May 26, 1898	" " ".....	" " ".....	135	10 00	.....
Feb. 18, 1898	Illinois Fuel & Power Co. No. 1.....	Sparta.....	45	6 00	.....
April 15, 1898	" " No. 1.....	" " ".....	12	6 00	.....
Mar. 15, 1898	" " No. 3.....	" " ".....	26	6 00	.....
May 25, 1898	" " No. 3.....	" " ".....	20	6 00	.....
July 15, 1897	Jupiter Coal Co.....	DuQuoin.....	50	6 00	.....
July 17, 1897	" " ".....	" " ".....	50	6 00	.....
Nov. 8, 1897	" " ".....	" " ".....	65	8 00	.....
Jan. 18, 1898	" " ".....	" " ".....	75	8 00	.....
April 21, 1898	" " ".....	" " ".....	35	6 00	.....
Nov. 17, 1897	Kuhn, Adam.....	Dubois.....	24	6 00	.....
Jan. 29, 1898	" " ".....	" " ".....	40	6 00	.....
May 18, 1898	" " ".....	" " ".....	35	6 00	.....
Aug. 9, 1897	Little Muddy Coal Co.....	Percy.....	32	6 00	.....
Dec. 20, 1897	" " ".....	" " ".....	35	6 00	.....
Feb. 19, 1898	" " ".....	" " ".....	33	6 00	.....
April 16, 1898	" " ".....	" " ".....	30	6 00	.....
Oct. 29, 1897	Mason Coal Co.....	Sato.....	27	6 00	\$12 00
Feb. 17, 1898	" " ".....	" " ".....	20	6 00	.....
April 25, 1898	" " ".....	" " ".....	13	6 00	.....
Oct. 5, 1897	Morris Bros. & Co.....	DuQuoin.....	40	6 00	.....
Feb. 25, 1898	" " ".....	" " ".....	66	8 00	.....
April 22, 1898	" " ".....	" " ".....	45	6 00	.....
Dec. 7, 1897	Mt. Vernon Coal Co.....	Mt. Vernon.....	75	8 00	.....
Mar. 8, 1898	" " ".....	" " ".....	52	8 00	.....
May 27, 1898	" " ".....	" " ".....	57	8 00	.....
July 14, 1897	Muddy Valley M. & Mfg. Co.....	Hallidayboro.....	100	8 00	.....
Nov. 29, 1897	" " ".....	" " ".....	200	10 00	.....
Mar. 24, 1898	" " ".....	" " ".....	200	10 00	.....
May 5, 1898	" " ".....	" " ".....	200	10 00	.....
Aug. 30, 1897	Murray, Hugh.....	Nashville.....	29	6 00	.....
Dec. 9, 1897	" " ".....	" " ".....	40	6 00	.....
Mar. 22, 1898	" " ".....	" " ".....	35	6 00	.....
July 19, 1897	Murphysboro B. M. Coal Co.....	Sato.....	24	6 00	.....
Oct. 29, 1897	" " ".....	" " ".....	35	6 00	.....
Feb. 17, 1898	" " ".....	" " ".....	40	6 00	.....
April 25, 1898	" " ".....	" " ".....	48	6 00	.....
Mar. 26, 1898	Myer, John.....	Percy.....	.....	.....	6 00
July 7, 1897	Ohio & Miss. Valley C. & M. Co. No. 1.....	Marion.....	72	8 00	.....
Oct. 4, 1897	" " No. 1.....	" " ".....	115	8 00	.....
Mar. 10, 1898	" " No. 1.....	" " ".....	68	8 00	.....
June 25, 1898	" " No. 1.....	" " ".....	90	8 00	.....
Dec. 10, 1897	" " No. 2.....	" " ".....	14	6 00	.....
Mar. 7, 1898	" " No. 2.....	" " ".....	20	6 00	.....
June 25, 1898	" " No. 2.....	" " ".....	30	6 00	.....
Nov. 22, 1897	Ohio-Valley Coal & Coke Co.....	" " ".....	40	6 00	18 00
Mar. 9, 1898	" " ".....	" " ".....	50	6 00	.....
June 21, 1898	" " ".....	" " ".....	40	6 00	.....
Mar. 9, 1898	Okawville W. S. Coal Co.....	Okawville.....	.....	.....	6 00
Oct. 26, 1897	Pittsburg Plate Glass Co.....	Fredonia.....	60	8 00	16 00
Oct. 18, 1897	Pope Mining Co.....	DuQuoin.....	18	6 00	.....
April 12, 1898	" " ".....	" " ".....	12	6 00	.....

Seventh District, Statement—Concluded.

Year of Inspection.	Name of Firm, Company or Person Operating Mine.	Location of Mine.	Number of men employed.	Inspection fee charged.	Inspection fee paid.
17, 1897	Randolph Coke & Coal Co., No. 2....	Sparta.....	21	\$6 00	.....
15, 1897	.. .. No. 2....	.. ..	30	6 00	.....
2, 1897	.. .. No. 1....	Perry.....	45	6 00	.....
3, 1897	.. .. No. 3....	Rosboro.....	28	6 00	.....
18, 1898	Rosboro Coal Co.....	Percy.....	35	6 00	.....
19, 1897	Sato Coal & M. Co.....	Sato.....	48	6 00	.....
24, 1897	.. ..	.. ..	28	6 00	.....
17, 1898	.. ..	.. ..	30	6 00	.....
25, 1898	.. ..	.. ..	30	6 00	.....
20, 1897	Scott-Wilson Coal Co., No. 1.....	Carterville.....	48	6 00	.....
23, 1897	.. .. No. 1....	.. ..	50	6 00	.....
11, 1898	.. .. No. 1....	.. ..	54	6 00	.....
13, 1898	.. .. No. 1....	.. ..	60	6 00	.....
12, 1898	.. .. No. 2....	Fredonia.....	49	6 00	.....
6, 1898	.. .. No. 2....	.. ..	26	6 00	.....
23, 1897	St. Louis Big Muddy C. Co.....	Carterville.....	270	10 00	\$70 00
27, 1897	.. ..	.. ..	260	10 00	.....
25, 1898	.. ..	.. ..	230	10 00	.....
14, 1898	.. ..	.. ..	39	6 00	.....
5, 1897	Sun Coal & Coke Co.....	Sunfield.....	35	6 00	.....
25, 1899	.. ..	.. ..	35	6 00	.....
22, 1898	.. ..	.. ..	35	6 00	.....
15, 1897	Superior Coal Co.....	DuQuoin.....	17	6 00	.....
22, 1897	Tamaroa Colliery Co.....	Tamaroa.....	31	6 00	.....
31, 1898	.. ..	.. ..	28	6 00	.....
14, 1897	Turner & Faust Co.....	Pinckneyville.....	18	6 00	.....
1, 1898	.. ..	.. ..	11	6 00	.....
2, 1899	.. ..	.. ..	10	6 00	.....
6, 1897	Valley & Gulf Coal Co.....	Sparta.....	50	6 00	.....
16, 1898	.. ..	.. ..	75	8 00	.....
30, 1897	Washington Coal Co.....	Nashville.....	9	6 00	18 00
9, 1897	.. ..	.. ..	26	6 00	.....
22, 1898	.. ..	.. ..	12	6 00	.....
28, 1898	Wild & Gill.....	Murphysboro.....	12	6 00	.....
14, 1897	Willis, D. P.....	.. ..	10	6 00	.....
15, 1897	.. ..	.. ..	22	6 00	.....
8, 1898	.. ..	.. ..	22	6 00	.....
9, 1897	Willis Coal & M. Co.....	Willisville.....	40	6 00	.....
21, 1897	.. ..	.. ..	60	8 00	.....
1, 1898	.. ..	.. ..	75	8 00	.....
15, 1898	.. ..	.. ..	60	6 00	.....
20, 1897	Williamson Co. Coal Co.....	Johnson City.....	55	8 00	.....
1, 1897	.. ..	.. ..	55	8 00	.....
17, 1898	.. ..	.. ..	40	6 00	.....
24, 1897	.. ..	Marion.....	47	6 00	.....
9, 1898	.. ..	.. ..	46	6 00	.....
Total.....			.....	\$1,268 00	\$210 00

*Recapitulation of the Reports of the State Inspectors of Mines,
of Inspections Made and Fees Charged and Paid for the Year
Ending July 1, 1898.*

Districts.	Number of mines in district.	Number of mines inspected.	Total number of inspec- tions.	Total amount of inspection fees.	Total amount of fees paid.
First.....	86	71	*192	\$1,438 00	\$468 00
Second.....	184	76	†160	1,174 00	816 00
Third.....	217	80	174	1,124 00	60 00
Fourth.....	94	55	†135	1,026 00	350 00
Fifth.....	79	67	161	1,350 00	314 00
Sixth.....	96	81	203	1,434 00	166 00
Seventh.....	123	66	184	1,268 00	210 00
Totals.....	881	496	1,209	\$8,814 00	\$2,384 00

*Seven inspections on account of fatal accidents.

†One inspection on account of fatal accident.

‡Two inspections on account of fatal accidents.

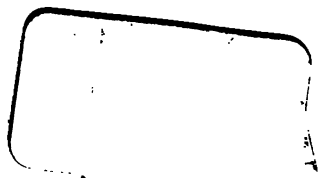
*Recapitulation of the Reports of the State Inspectors of Mines of
Inspections Made at the Different Rates of Fees Charged,
Number of Inspections and Average Number of Men to Each
Inspection.*

DISTRICTS.	INSPECTIONS AT \$6.00.			INSPECTIONS AT \$8.00.			INSPECTIONS AT \$10.00.		
	Num- ber of inspec- tions.	Aver- age num- ber of men.	Amount of fees.	Num- ber of inspec- tions.	Aver- age num- ber of men.	Amount of Fees.	Num- ber of inspec- tions.	Aver- age num- ber of men.	Amount of fees.
First.....	111	16	\$666 00	19	85	\$152 00	62	301	\$620 00
Second.....	88	22	528 00	37	96	296 00	35	320	350 00
Third.....	138	14	828 00	32	69	256 00	4	254	40 00
Fourth.....	66	22	396 00	30	76	240 00	39	185	390 00
Fifth.....	49	29	294 09	32	83	256 00	80	159	800 00
Sixth.....	124	27	744 00	50	73	400 00	29	133	290 00
Seventh.....	120	22	720 00	46	75	368 00	18	175	180 00
Totals.....	696	23	\$176 00	246	79	\$968 00	267	217	\$670 00



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1. The first part of the document is a list of names and addresses of the members of the committee.

2. The second part of the document is a list of names and addresses of the members of the committee.

3.

AUG 21 1960